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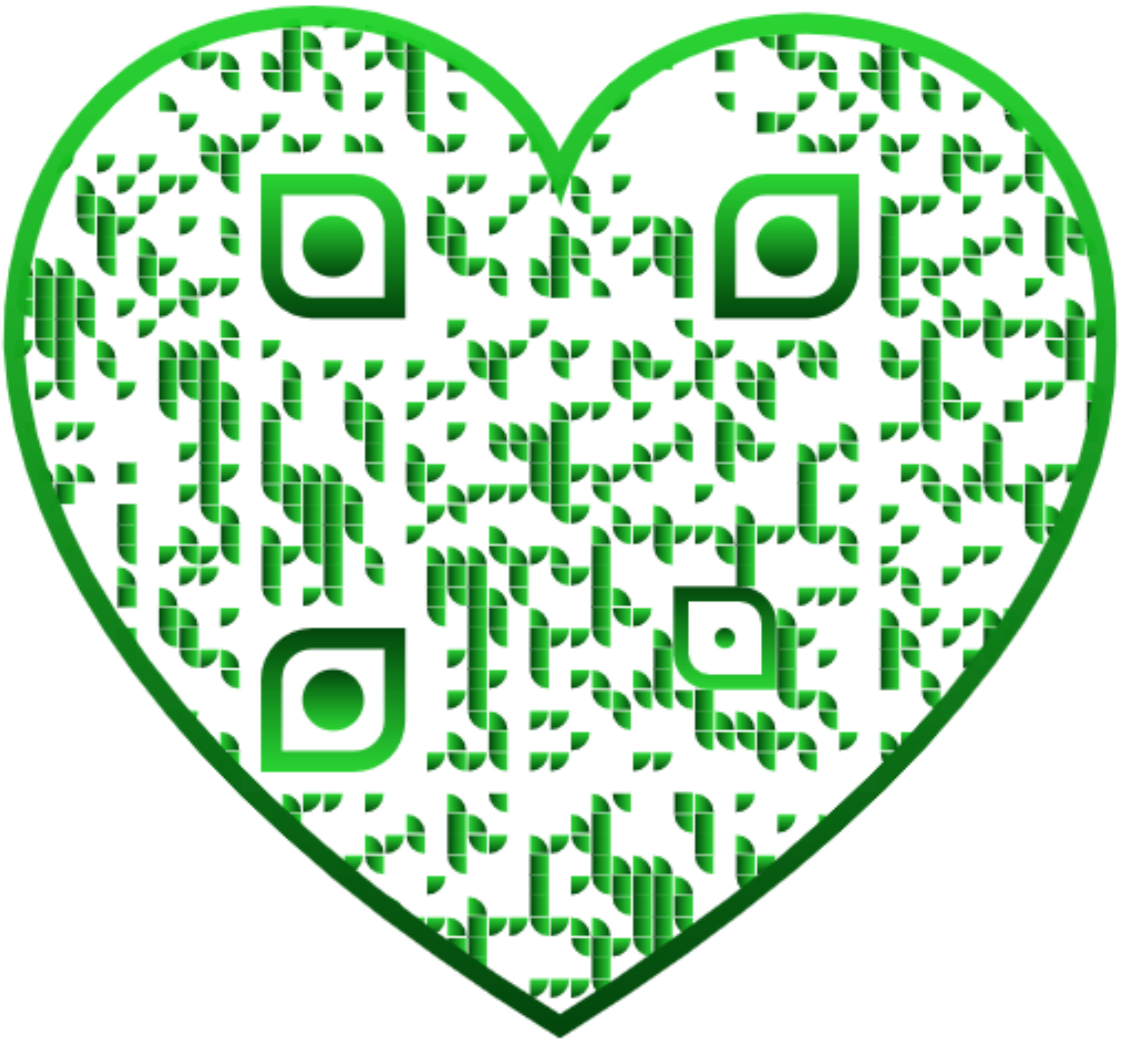

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Hello World

Let‘s begin the start of our worldwide analog adventure with deeply digital words: „hello world“ being the well known phrase that more or less every newborn piece of software puts out as a first sign of life. While the format of this publication is purely digital – thus the headline - its content couldn‘t be further from that. „LP International“ is our way of bringing the German „LP“ magazine to all of you out there, wherever on our planet you might be. „LP“ is doing great in the German speaking part of Europe for 17 years now, and we are pretty sure that you will appreciate the way we relate to audio topics. We are strictly two channel analog here. Vinyl is our main source of music. This is why you‘ll find reviews of freshly pressed vinyl in each issue – luckily, there‘s lots of those these days. We strongly believe that the luxurious analog format gives the music additional value, and that the only satisfying way to really collect music is loading shelves with records. We‘re not here to discuss if vinyl actually sounds better or worse than whatever kind of digital format, as that‘s beyond the point: If you love an album, you want to posess it. And there‘s undeniably no better way to do so than with vinyl. It might be getting dents and scratches of time, but that‘s fine, it‘s what happens to all of us on our journey through life.

So let me invite you to our first international issue, you will find well-founded reviews of all types of gear needed to play our beloved records, lots of music and a ton of fun.

Holger Barske, Chefredakteur

THORENS
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08

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MC
DISP
GAIN: 0dB
LOAD: 470Ω + 100pF
RUMBLE OFF
RIAA
PREAMP
42
ENH. OFF
L-R SWAP
STEREO
RCA 1
PHONO
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30

Skyanalog
G-3
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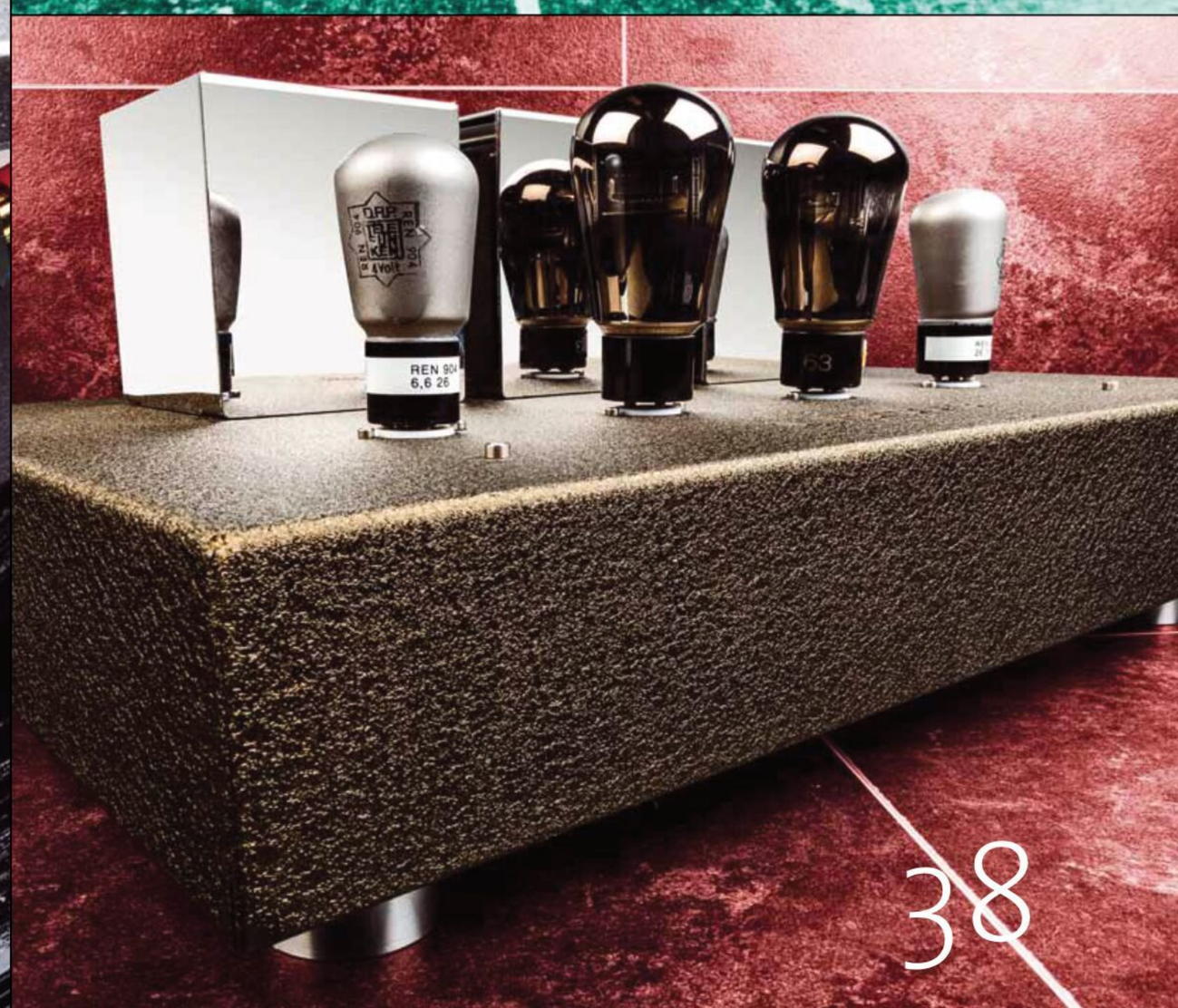
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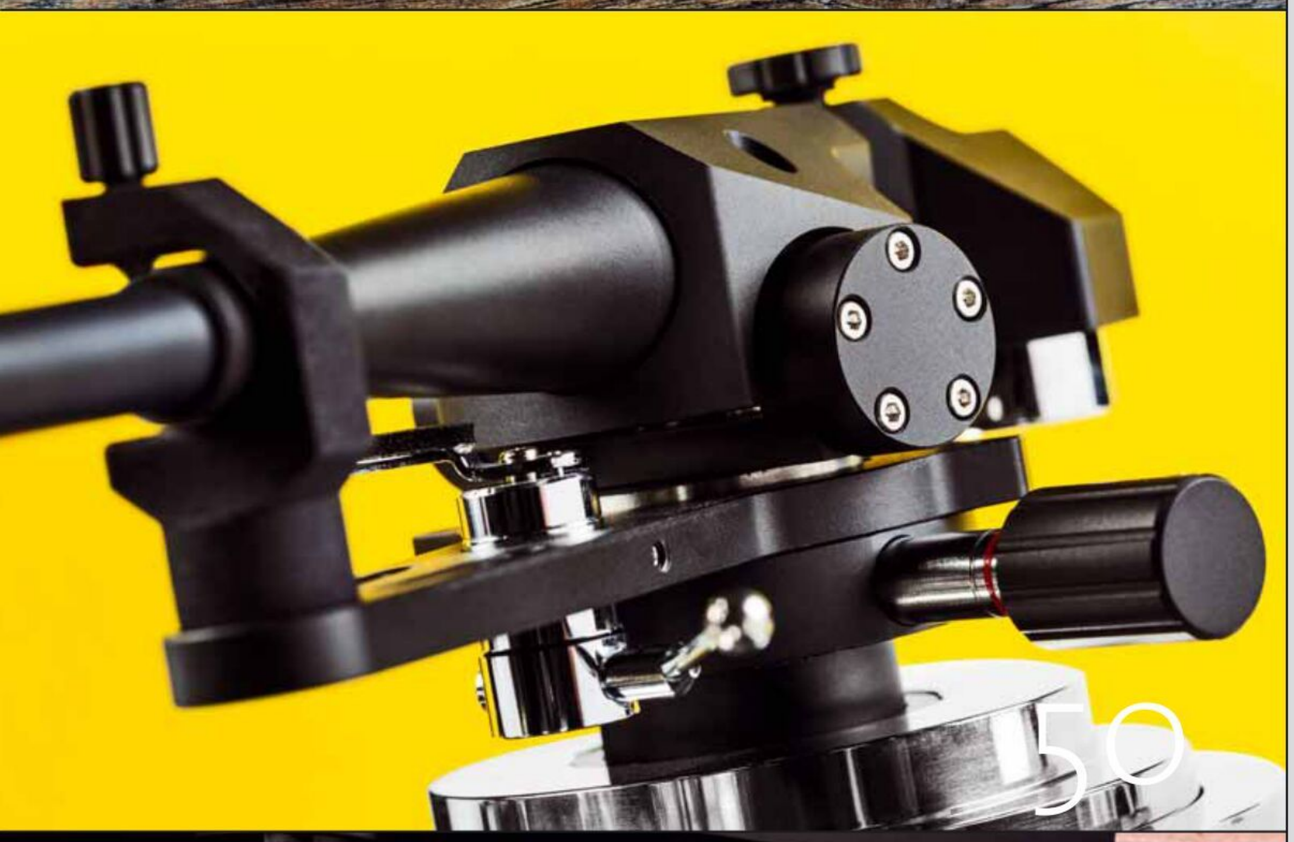

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D'Agostino Renews Progression Amplifier Series

US amplifier specialist Dan D'Agostino has introduced new power amplifier models in the „Progression" series. Both the M550 mono power amplifiers and the S350 stereo model are now visibly based on the company's own top-of-the-line „Relentless Mono Amplifier" model. Thus, the heat sinks of the M550 are milled from a massive 22-kilogram aluminum block. The possible cooling capacity is urgently needed given the specified output powers of 550, 1100, and 2200 watts at eight, four, and two ohms. The S350 should be about half of that in terms of power, as the type designation suggests. Both amplifiers have been significantly revised compared to the previous models and feature improvements in distortion behavior, signal-to-noise ratio, channel separation, and bandwidth. The manufacturer promises noticeably more detailed reproduction with improved spatial imaging. Of course, mandatory on D'Agostino amplifiers are the unique green illuminated pointer instruments that give the amplifiers their distinctive look. The M550 costs EUR 60,000 per pair, while the S350 costs EUR 35,000.

Contact: Audio Reference, Hamburg · Phone: +49 (0)40 53320359 · Internet: audio-reference.de

A Classic with an Edge

The British company Graham Audio belongs to the illustrious circle of manufacturers who are allowed to produce „real" BBC monitors - i.e., loudspeakers according to the unique requirement profile of the „grand old lady" of British broadcasting. And now there's a new model, which amounts to a minor sensation: It's called „LS 8/1 Derek Hughes Signature Edition" and is named after the development legend Derek Hughes. The loudspeaker, housed in a thin-walled cabinet with targeted damping in typical British fashion, works with an eight-inch woofer and two domes for the mid-high range, which could hardly be more classic. Limited to 100 pairs, the special model is specified with an efficiency of 87 decibels at 2.83 volts and retails for 7,000 EUR per pair, including matching stands.

Contact: Audio Offensive, Falkensee
Phone: +49 (0)3322 2131655
Internet: audio-offensive.de

New Burmester Turntable

It's so new, there's no retail price yet: Burmester recently introduced two new products at the Hong Kong High-End Audio Visual Show, of which the turntable is of particular interest to us. Inspired by the multi-award-winning 175, the new 217 focuses on delivering superior playback quality and is equipped with two motors that drive the turntable via two belts. The device belongs to the in-house Top-Line and presents itself in a perfectly matching look. We will certainly report on the device in more detail in due course. The market launch is planned for October 2021.

Contact: Burmester, Berlin · Phone: +49 (0)30 7879680 · Internet: burmester.de

New 300B Integrated Amplifier

Cayin announces a new tube integrated amplifier, the CS-300A. The device works with the mother of all directly heated triodes in the form of the 300B in the sonically particularly promising single-ended mode. In the newcomer (costing around 4,000 Euros), a double triode 6SL7 for voltage amplification and a 6SN7 as a driver tube support the power tubes. This is done just as strictly channel-separated as the tube rectification of the anode voltage using one GZ34 per side. The manufacturer ascribes to the arrangement an accentuated liquid sound with excellent detail resolution. Cayin elicits a remarkable 8 watts of power per channel from the 300B, and the output transformers have taps for four-, eight- and 16-ohm speakers. The output transformers have their dedicated winding specifically for use with high-quality headphones. A built-in measuring device balances the quiescent current, and the negative feedback can be adjusted in two stages via a switch. Remote control? Included in delivery.

Contact: Cayin, Glashütten · Phone: +49 (0)6174 9554412 · Internet: cayin.com

New „small“ integrated amplifier from Accuphase

After the Japanese electronics specialist Accuphase has recently expanded its integrated amplifier program at the upper end of the range with the E-800, it is now the turn of the entry-level model to be updated. The „new little one“ is called E-280 and will be available for 5,100 EUR when it is finally available. It is specified with 90 watts at eight and 120 watts at four ohms, which are always very conservative specifications at Accuphase. The E-280 has inherited quite a few features from the larger models, such as the unique AAVA volume control that does without a potentiometer. The manufacturer has taken special care with the tone control, which works with summing active filters, and the output stage has also improved: Thus, the damping factor has increased by 25 percent. With Accuphase, it is a matter of course that phono and D/A converter cards are optionally retrofittable.

Distribution: PIA HiFi, Weiterstadt
Phone: +49 (0)6150 50025
Internet: pia-hifi.de

First Record Player from Naim

It has taken almost 50 years of company history, but now it is finally here: Naim‘s first turntable. It is called the „Solstice“ and boasts a whole series of technical features, including a magnetically decoupled platter bearing. The platter itself is an extremely solid aluminum model, and an RPM-controlled drive drives the entire thing. The Solstice is available in an edition of 500 pieces worldwide. It is offered exclusively as a set with the company‘s own Aro tonearm, the Equinox MC cartridge, the NVC TT phono preamplifier, the NPX TT power supply, and various accessories. The electronics are manufactured at Naim‘s headquarters in Salisbury. The turntable, tonearm, and cartridge are manufactured to Naim specifications at Clearaudio in Erlangen, Germany. The price for the complete ensemble is 17,000 EUR.

Contact: Music Line, Rosengarten
Phone: +49 (0)4105 77050
Internet: naimaudio.com

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A Thorens Classic, Reinvented

Thorens have completed their first “big” turntable. And it has become an excellent reference to the rich heritage of the company

Yes, it is true. I was one of them. One of those who, at least in spirit, threw their hands up in horror at the presentation of the direct-drive new edition of the Thorens friction wheel drive that reigns at the very top of the classics Olympus. What blasphemy! How can one burden His Majesty, the holy TD 124, with such an embarrassing successor? In the meantime, I can say with a clear conscience: Nothing about the TD 124 DD is embarrassing.

On the contrary, when Gunter Kürten unpacked the first-ever built unit of the limited series in our listening room and put it into operation, it commanded my respect. Not only for the owner of the company but also for the engineering of the machine. It incorporates a lot of clever solutions, some have been carried over from the original model and some have been freshly conceived.

The external power supply unit provides the electronically stabilized operating voltages for the TD 124 DD

Christmas and the turn of the year lie behind us, and I have spent a lot of time with the TD 124 DD at home. This thing, folks, is not a toy. I say that from the perspective of someone who has never owned an original TD 124, so the comparison between the two concepts could at best be drawn from a theoretical perspective. But I don’t have to because the new model speaks for itself – with a clear, loud, and distinctive voice. Of course, we can’t completely get away without cautiously squinting at perhaps the most famous of all “Thorenses” from time to time. If only because one could almost mistake the original unit for the “DD” at first glance. Only the new one‘s external power supply reminds us that turntables are built a little differently nowadays than in 1957 when the TD 124 story began.

First of all, let’s clear up an urban legend: The TD 124 was by no means a classic friction wheel drive turntable, but a so-called combination drive. In other words, one in which the friction wheel was not driven directly by a motor but by an intermediate belt drive. This was the only way to reduce the inevitable rumble caused by the friction wheel principle to an acceptable level. Therefore: Don’t be so fussy. Most likely, the DD’s powerful direct drive even creates more torque at the disc axle than the old-timer with its two-stage solution.

The sub-chassis sits on top, the cabinet below: The TD 124 DD follows classic principles

As a TD 124 newcomer, I first noticed the compact appearance of the device. 42.5 centimeters in width and 35 centimeters in depth, in the age of expansive vinyl altars, these are very modest dimensions that undoubtedly make it easier to accommodate the 17 kilograms and 8000 Euro device. Fortunately, the DD isn't particularly sensitive when it comes to placement. In my case, it rested for weeks on a very unspectacular spruce shelf, which was at first intended for wall mounting. Impact noise sensitivity was surprisingly low, although the whole thing was sitting on a hardwood floor. I was pleased with that solution, but I have to admit that the "TAB 1600" base, which costs 169 euros, improves the decoupling from the floor even more. Just between us: I would treat myself to the two-layer plate, where at least one layer consists of porous absorber material.

Of course, the TD 124 DD is a real sub-chassis player. However, the aluminum chassis rests on four elastomer elements, not springs like in the old days. If there had been such high-quality vibration damping materials in the 1950s, the original 124 would probably be conceived using them. Each of the four bearing points is adjustable in height using an external screw. With three bearing points, the whole thing would be a little easier to bring into a horizontal position, but with a bit of feeling, it's also fine with this solution. To control the alignment, the circular level embedded in the sub-chassis provides valuable services. The touch and feel of all components of the TD 124 DD is excellent and appropriate for the asking price in every respect. Also, I must say it once again: If you give a manufacturing company based in the

Teammates

Phono preamp:
· Malvalve preamp three phono

Integrated amplifier:
· Riviera Levante

Preamlifier:
· NEM PRA5

Power amplifier:
· Silvercore Collector's Amp

Loudspeaker:
· Dynamikks Monitor 10
· DIY Focal / JBL

Compatitors

Record player:
· TechDAS Air Force III / Reed 3p / Skyanalog G-2
· Levar Ultimate / Ultimate Carbon 12" / Skyanalg G-3

Paul Kuhn Trio – Live At Birdland

What we played

Paul Kuhn Trio
Live At Birdland

Tsyoshi Yamamoto Trio
Misty

Neil Young
At Massey Hall

Mogwai
Come On Die Young

Remarkable: There are even true balanced output sockets

Far East enough money for the job, then the results can be absolutely on par with "real" Made In Germany. Under the three-and-a-half kilogram aluminum platter of the device, the drive shows up: The direct drive motor sits far on the inside and thus far away from the pickup area, which is potentially vulnerable to magnetic fields. The motor's design with its vertically arranged magnets and coils is not entirely unknown and is reliably used in a whole series of famous "high-speed starters" in the DJ scene. The TD 124 DD is not capable of such tricks due to its heavy platter, but it nevertheless reaches its rated speed very quickly. The speed is selected via a switch on the front left corner of the turntable. There is another lever on the far left side, which is based on the disc brake of the original TD 124. This one, however, does not intervene mechanically but stops the platter electrically. This proved to be very practical when

The device has pleasantly compact overall dimensions, which facilitates its placement

The retractable singles adapter is integrated into the plate

The knob on the right controls the electric tonearm lift. At the bottom center of the picture, you can see one of the knurled wheels for height adjustment

The lever on the left side is the very practical disc brake

turning over a plate, and I quickly got used to it. The DD's platter carries a strobe marking on the outside visible through a small window and illuminated by a strobe light. A dial on the device's front edge allows fine adjustment of the platter speed, which proved to be constant over the test period.

The TD 124 DD is equipped with a dedicated tonearm called TP 124 as standard, which is an entirely new design visually inspired by classic models. The nine-inch arm, fitted with a J-shaped bent aluminum tube, carries an SME bayonet at the front end and, with an effective mass of 15 grams, falls right into the "medium-weight" category. Very nice: the anti-skating solution with thread and counterweight, where the weight does not dangle on the side for once but disappears inside the device through a hole in the arm base. A ruby ring ensures virtually friction-free thread guidance. The tracking force is first calibrated by adjusting the counterweight (two models of different weights are included). Once the cartridge is balanced, the spring-loaded adjustment via a lever on top of the tonearm bearing housing is used to efficiently, delicately, and flawlessly set the nominal value.

The TD 124 DD has a feature that we already know from the TD 1601 model, namely an electric tonearm lift. It is operated by a toggle switch on the front right and does precisely what it is supposed to. Admittedly, I wouldn't mind if it did it a bit more swiftly and quietly, but that's a luxury problem. You can order the TD 124 DD with two different pickups if desired. We have already presented the modern MC called TAS 1600 for a 1200 Euro extra charge in a bundle with the TD 1601. Alternatively, there is a genuine SPU called "SPU TD 124" for 2000 Euro. As transparent, tonally correct, and nuanced as the TAS 1600 sounds – I cannot deny that the SPU has taken my heart by storm. And it is, in fact, a carefully

The 3.5-kilo aluminum platter carries the rotor for the direct drive inside

The drive concept is closely modeled on the one used in DJ turntables

The TP 124 tonearm features a few clever design details – like the recessed anti-skating weight

modernized version of the Ortofon classic with an elliptical needle profile, relatively high output voltage (0.5 millivolts), something like actual needle compliance (8µm/mN) and a recommended tracking force of 25-35mN. With a generator resistance of two ohms, it can be used excellently with transformers and feels very at home with only ten times the gain.

Even with the TAS 1600, the Thorens unit cannot deny its high-torque drive borrowed from the DJ camp: This thing just gets going unlike anything else. Let's take the superb Paul Kuhn recording "Live At Birdland" from 2010, which shows the entertainer at his best. Things are swinging beautifully here, with superbly sorted stage separation and subtle cymbal work. The piano action is precise and to the point – this is entertainment at its best. The SPU, however, once again brings tears to my eyes on this record. It sounds a bit more grounded in timbre, perhaps doesn't act quite as refined and subtly articulated up top, but it's – well, live. It is a bit scruffy, with unparalleled thrust, heft, gut, and a matter-of-factness that is second to none. I even ventured into Japanese Three Blind Mice jazz in the guise of "Misty", just for sheer effect: DD and SPU deliver a dynamic folly here that I've rarely experienced. Such a bone-hard piano with so much power isn't an easy thing to reproduce on vinyl. Smoothness and feeling are also possible: Neil Young's 1971 Massey Hall concert proves once again to be a fragile masterpiece of zeal, the emotionality of which is served up by this team in an outstandingly haunting manner.

Holger Barske

The TAB 1600 platform is more than worth its price of 170 euros

Thorens TD 124 DD

· Price	from ca. 8.000 Euro
· Sales	Thorens, Bergisch Gladbach, Germany
· Phone	+49 22048677720
· Internet	thorens.com
· Warranty	2 years
· W x H x D	425 x 185 x 350 mm
· Weight	ca. 17 kg

lp

Thorens
TD 124 DD

International 1/21

» What a resurrection! The TD 124 DD is compact, convenient to use, and sounds exceptionally crisp, powerful, and emotional. A big extra plus goes to the fantastic Thorens SPU.

G-1
Skyanalog

Three New MCs – A Fresh Breeze from China

At some point, it had to happen that Chinese manufacturers discover the profitable cartridge market for themselves. Is that a problem? Certainly not for you as a consumer.

Goldfrapp – Tales Of Us

What we played

Goldfrapp
Tales Of Us

Lambchop
Damaged

Avishai Cohen
Into The Silence

VA
Audiophile Analog Collection Vol. 1

The connector pins are marked with the usual color-coded rings

Straight front and side edges facilitate the adjustment of the pickups

The issue is far older than you might think. And I have no idea how many manufacturers produce cartridges in China after all. I once had the pleasure to do a little research at AliExpress and was met with relatively few results: The Audio Technica MC classics AT91 and AT95 are available there. However, I dare not say to what extent they have anything to do with the (now discontinued) originals. In any case, I could not find any high-quality MCs.

Now „Skyanalog“ is pushing onto the international market to change that. The company has existed since 1999 and began, like many companies in this business, as a fairly general-purpose manufacturer of consumer electronics components. Initially, it was tube amplifiers that made up the most significant part of the portfolio. Some of you may remember the early products from China, which, to put it politely, did not always meet European expectations and safety standards and could only be obtained from specialized mail order companies. Official distribution was not an option. At that time, Skyanalog founder Jack Leung had long since outgrown his early DIY years, in which he built audio components from scrap components and thus acquired his electronics know-how. As a hi-fi insider, he recognized early that the analog market was experiencing something of a rebirth and reacted accordingly: he began developing cartridges and admits in no uncertain terms that this was a much more difficult job than he had assumed at the outset. In the meantime, he has been operating as a renowned supplier for a whole range of well-known cartridge manufacturers from the USA, Canada, New Zealand, Japan, and other countries. And we would probably all be stunned if we knew which of our MC gems are ultimately made in Jiangmen, a city of four million people in the Guangdong province. Now Jack Leung has decided to face the international competition under his own label and presents three MC cartridges, which, I can already tell you, do not have to hide from any competitor, no matter how renowned. However, they are not as cheap as some might have hoped: The G-1 model can be purchased here for 1,000 Euros, the G-2 for 1,500, and the top model G-3 for 2,000 Euros. The information situation regarding technical details is a bit difficult, but we do know a few things. All three models are built on a solid aluminum body, which only differs in the anodized color: Purple for the G-1, blue-turquoise for the G-2, and an unspectacular dark gray for

They are proud of what they do and are not afraid to inscribe the country of origin in large letters on the cartridges

The external part of the generator is wrapped in shrink tubing

The manufacturing quality is excellent; the stylus cantilever sits perfectly straight

the top model. All three models weigh just under ten grams and are of course equipped with the classic half-inch mount. The M 2.5 threads are cut directly into the body of the stylus and are almost eight millimeters deep.

The straight front edge of the bodies makes the correct adjustment of the offset quite easy. Especially since – and this is a crucial point – the stylus cantilever has been mounted in an exemplary straight position on all three models. I dare to say that the actual generator armature is very similar on all three models and the differences are essentially limited to what peeks out at the „business end“, i.e., stylus cantilever and pick-up diamond. The only thing to say about the generator is that soft iron is used as magnet material and the coils are arranged crosswise. In this way, all three models generate an output voltage of 0.35 mV at a speed of 3.54 cm/s, which should amount to just under 0.5 mV at the more common specification of 5.5 cm/s. No problem, therefore, for practically all possible MC phono preamplifiers. Even the cheapest model is equipped with a boron stylus cantilever. The G-2 is fitted with a ruby needle carrier, and the big G-3 uses sapphire. A very narrow line-contact diamond comes into play in all three, ensuring maximum contact surface to the groove. The recommended contact force is between 16 and 20 mN; only the G-3 should stop at 19 mN. The manufacturer recommends termination impedances between 200 and 470 ohms, and needle compliance is in the range of 10 to 12 µm/mN, suggesting the use of medium-heavy arms. For this purpose, I screwed three test subjects under the 9“ variant of the Clearaudio Universal, which proved to be a decidedly suitable choice.

We'll start the roundup with the least expensive model, the G-1. Wait a minute. This is a 1000 Euro MC, right? I mean, that's not little money for a wear part – and that's what an MC cartridge is, after all – but this one plays well above that class. The G-1 has an exceedingly powerful and colorful pace, it rumbles, clangs, and jubilates, it dances and trills, and seems like a young hunting dog let off the leash. Even though it has not yet had the 30 hours of play-in time recommended by the manufacturer.

Teammates

Turntables:
- TechDAS Air Force III / Reed 3p
- Levar Ultimate /Ultimate Carbon Oil
- Clearaudio Master Innovation / Universal 9"

Competitors

Cartridges:
- Benz Micro ACE-L
- DS Audio DS E1

The packaging of the cartridges is a rather plain wooden box

The dark stylus cantilever of the G-1 is a rod made from boron

The top model G-3 has a needle carrier made of sapphire

Maybe it's because I ultimately undercut the manufacturer's recommendation in terms of terminating impedance and end up with 100 ohms – so it just generates even more low-end steam and seems a little smoother in vocal ranges. Very nice to verify, for example, with Allison Goldfrapp and her 2013 album „Tales Of Us". The G-1 delivers a rich and full-bodied sound, placing the voice nicely in front of the musical background.

There is an immediate feeling that this sounds „right", without having to define it further. However, one may still notice a lot of mellowness in the voice with „Annabel". Actually, I would now be done with the topic. The G-1 hugs my taste buds so skillfully that my need for cartridge quality is satisfied. It is true, however, that there is still room for improvement, as the G-3 shows quite impressively: It sounds tidier, more transparent, and refined. I elicit its richness of detail optimally with a terminating impedance of 470 ohms. Avishai Cohen and his band perform extremely relaxed, the brooms are dancing on the drum heads in a super delicate way, piano strokes are infinitely lingering in the room. Not as impetuous as the G-1, more elegant, more professional. The G3 is more of a cartridge for jazz listeners than rockers. Lambchop singer Kurt Wagner sounds more disciplined, more focused with the G-3. Articulation of the throaty organ, finely placed among the multitude of instruments. With all of the Skyanalog pickups, I tend to the upper value of the recommended tracking force. In the end, I also allow the G-3 twenty millinewtons and thus somewhat more than the manufacturer recommends. But it simply sounds more coherent that way. The surprise comes when changing to the G-2: It is very similar in sound to the 500 Euro more expensive big brother. It seems to me to be a bit quieter but has practically the same accuracy and resolution. It plays minimally darker timbres than the G-3, which one can quite like. All three Skyanalog models enrich the cartridge assortment and make life quite difficult for many established models.

Holger Barske

Skyanalog G-1, G-2, G-3

· Prices	ca. 1.000, 1.500, 2.000 Euro
· Sales	TCG GmbH, Nordhorn
· Phone	+49 5921 7884927
· Internet	tcg-gmbh.de
· Warranty	2 years
· Weight	ca. 10 g (each model)

The G-1 model, in particular, is likely to cause quite a stir in the stylus market

lp

Skyanalog
G-1, G-2, G-3

International 1/21

» Skyanalog's entry into the MC market is a real bang for the buck: The extremely enthusiastic G-1 and the delicate and refined G-2 and G-3 are bound to find many friends.

Two-way Loudspeakers Done Right

Oh, it's so liberating to work with real professionals from time to time. And if you can pin this label on someone's coat when it comes to loudspeakers, it's Karl-Heinz Fink.

LP Int_1-2021

Yes, I admit it: Sometimes, after the delivery of preferably costly hi-fi components, the first thing I have to do is spend an hour in the basement laughing. The „philosophy“ that is sometimes served up, the self-evident facts presented as a sensation, and the groundbreaking discoveries that have pulverized the laws of classical physics in the development of the product, are sometimes somewhat amusing.

The bass-midrange driver is an eight-inch woofer developed especially for the Kim

In my opinion, there are only a few approaches in the field of passive loudspeakers that lead to compelling results. All of them, however, require many years of experience and profound knowledge of the profession. People who regularly look over fences and create truly innovative products in this sector are scarce. It is not without reason that Karl-Heinz Fink is one of the best-employed and most renowned „consultants“ in the field of loudspeakers. With his company „Fink Consulting“, based in the neighboring city of Essen, he has earned a reputation for developing the best possible loudspeaker for any customer, based on the specifications given.

A few years ago, Karl-Heinz decided to build some loudspeakers the way he thinks is right and not according to the customer's specifications. To this end, he created the „Fink Team“ and, with the help of a few old friends and excellent international connections, is currently designing and manufacturing three passive boxes that differ in many respects from the variations on the same themes that we are presented with daily.

The Kim belongs to the more voluminous representatives of the compact speaker genre

Two rotary switches allow the adjustment of the upper bass character and the tweeter level

The tweeter was developed in cooperation with Mundorf

Karl-Heinz's latest creation is the smallest model of the series called „Kim". He chose Ensign Harry Kim, bridge officer of the USS Voyager, as the patron saint. The next bigger model is called „Borg"; the model name is also borrowed from the Star Trek universe.

Kim is a two-way speaker with an eight-inch woofer and AMT tweeter. For the initial price of 10000 Euros, tubular steel stands are bolted to the speaker, giving it a precisely defined rearward tilt. Of course, this is systematic and has to do with the tweeter: The driver, which was developed in collaboration with the Cologne-based specialist Mundorf, emits relatively strong directivity in the vertical direction due to the length of its diaphragm. The angling helps to hit precisely the ear level of the listener at usual listening distances. The vertical directivity is carefully chosen to minimize reflections from the floor and ceiling. The tweeter is a potent model and comes into play from as low as 2.2 kilohertz, which doesn't bother it in the slightest due to its large diaphragm area; the distortion measurements attest to the transducer top marks.

The Kim's bass-midrange driver does not come from the shelves of the relevantly known suppliers. Fink had specific ideas about the driver and had it custom-made. The eight-inch model is a beauty with a rather voluminous ferrite drive. A composite diaphragm conveys the sound with high fiber content. The soft roll surrounding with optimized sound dispersion contributes its share to the large excursion the driver is capable of.

The bass reflex port exits at the top of the cabinet on the rear panel

Teammates

Turntable:
· TechDAS Air Force III / Reed 3p / DS Audio DS-E1

Phono preamp:
· DS Audio

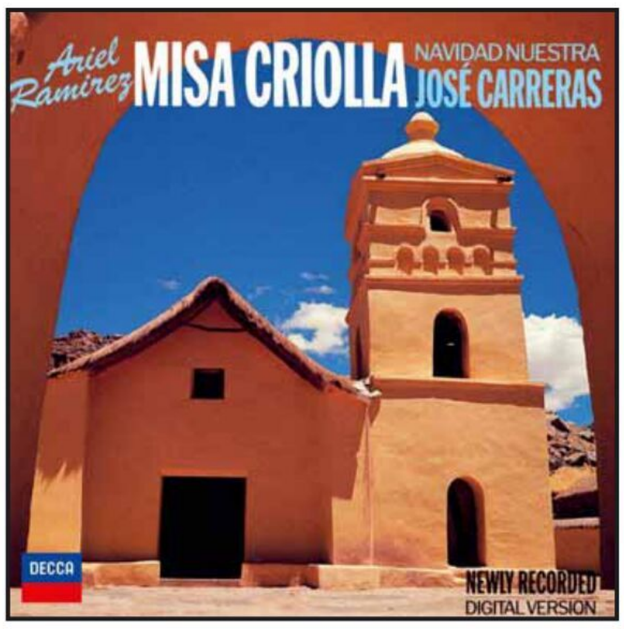
Integrated amplifier:
· NEM PRA5

Power amplifier:
· Silvercore Collector's Amp

Integrated amplifier:
· Grandinote Shinai
· Cambridge Edge A

Competitors

Loudspeaker:
· DIY Focal / JBL
· K+T Ella



José Carreras – Misa Criolla

What we played

José Carreras
Misa Criolla

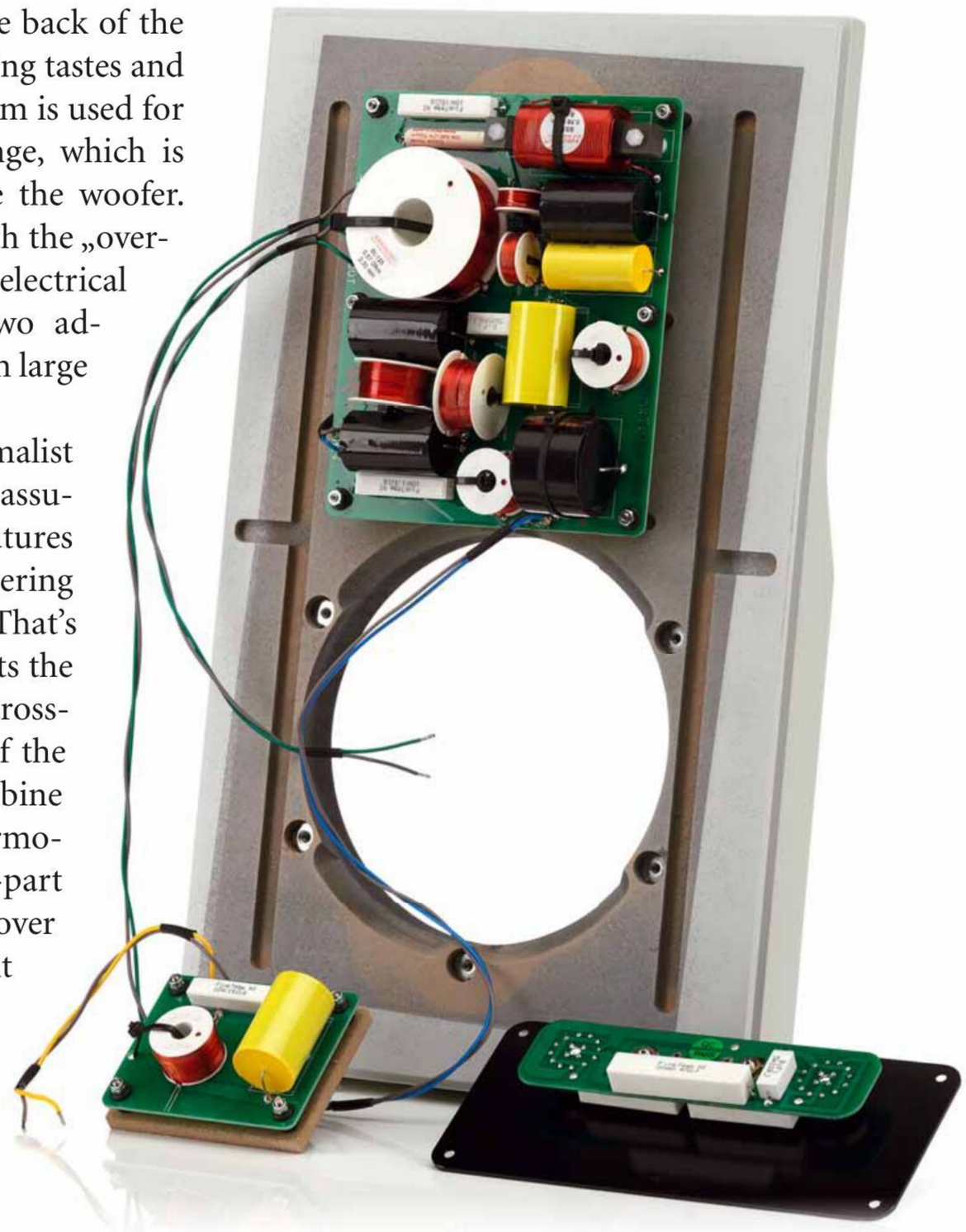
VA
Jazz At The Pawnshop

Rickie Lee Jones
ST

Causa Sui
Summer Sessions 13

There are two switches on the back of the speaker for adapting to listening tastes and spatial conditions. One of them is used for damping the upper bass range, which is realized with resistors before the woofer. Fink appreciates this trick with the „overpotent“ woofer with selective electrical damping. Switch number two adjusts the tweeter level, not with large jumps but at nuances.

The crossover is not a minimalist concept, as one might have assumed. Instead, the Kim features complex fourth-order filtering that separates both drivers. That's not all: an all-pass filter adjusts the phase of the tweeter in the crossover frequency range – one of the little secrets of how to combine two such different drivers harmonically. The result is a three-part crossover ensemble with well over 20 components. Both baffles sit neatly flush in the relatively wide baffle, a generous profile in the tweeter area helps the radiation behavior. The speaker is not tiny but looks elegant due to the delicate stand and the inclination. The cabinet's technical comple-

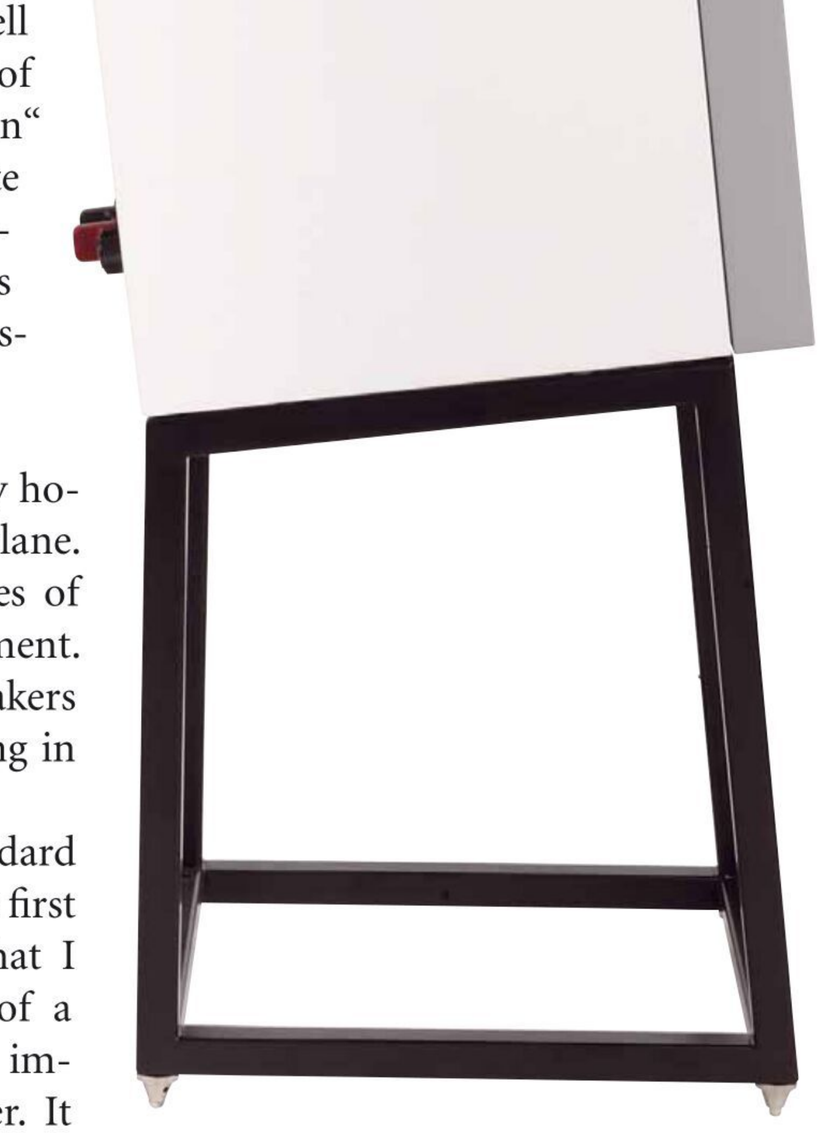


The complex crossover is distributed over three circuit boards

The cabinet is an elaborate affair with a multitude of struts and resonance chambers

This resonator acts exactly at the center of the reflex tube

xity is not readily apparent, but according to reports, it consists of over 80 individual parts. It has a sandwich construction of the walls with an internal damping layer and various resonators that specifically dampen the sound emitted from the woofer's rear. Particularly interesting is the resonator, which acts centrally in the bass reflex tunnel and is particularly effective at this point. These are things that are found in virtually no other loudspeaker product. Such tricks require a profound knowledge of the matter – and the possibilities to develop something like this to the end. The flawlessly manufactured cabinet is available in various finishes. Common to all is a baffle painted in a matte „soft touch" finish, which is very pleasant to the touch. The Kim is mounted via a pair of extremely solid copper binding posts from Mundorf. These can accept banana plugs or clamp cable lugs immovably. In terms of power requirements, Kim is a pleasantly uncritical speaker. It copes very well with the almost 15 hybrid watts of the Silvercore „Collector's Edition" and the 37 watts of the Grandinote Shinai. However, a little more power does not hurt at all, as tests with the Cambridge Edge A impressively prove.

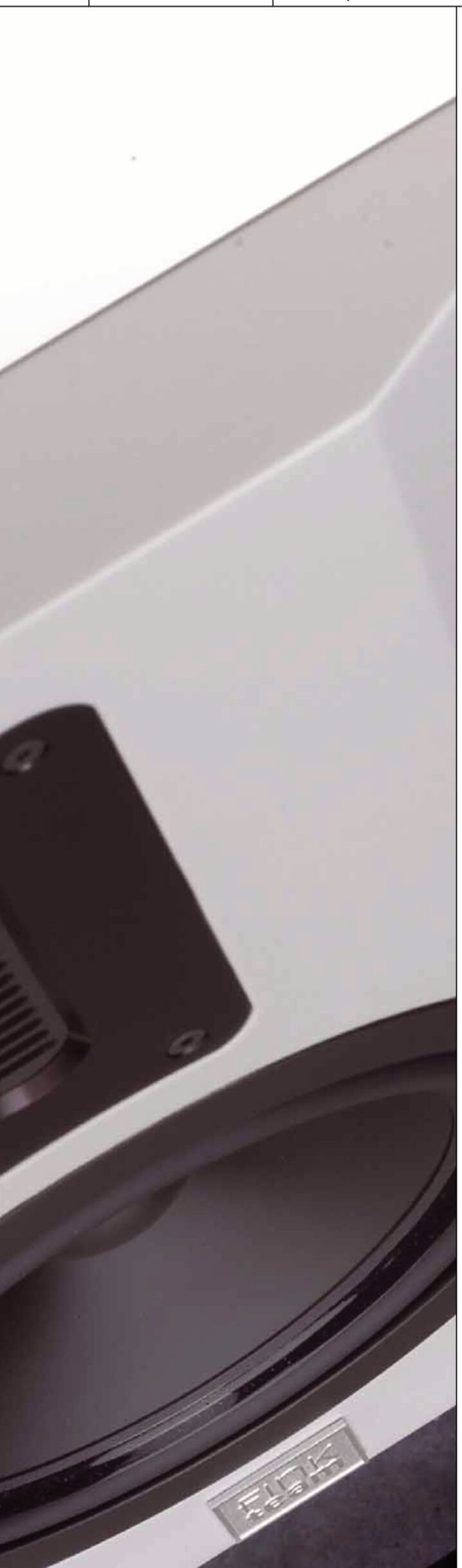


The slanted position of the speaker ensures that the tweeter radiates at ear level

The Kim radiates broadly and very homogeneously in the horizontal plane. That's why there are some degrees of freedom when it comes to placement. You can even position the two speakers quite far apart without the imaging in the center suffering.

Before we get into the usual standard elements of a listening test, let me first mention a few unusual things that I rarely associate with the sound of a loudspeaker and that struck me immediately after the first encounter. It sounds „like it's been lubricated". In other words: there's something remarkably smooth, supple, and well-oiled about the acoustic image. Despite the high degree of precision, I simply don't hear anything rough or edgy. Speakers with AMT tweeters always cause me some sort of „basic anxiety" because I hear too many of them where the integration just goes wrong in favor of the effect „Hello, dear listener, this speaker has a great AMT as a tweeter!"

The stands are an integral part of the concept and firmly screwed to the box

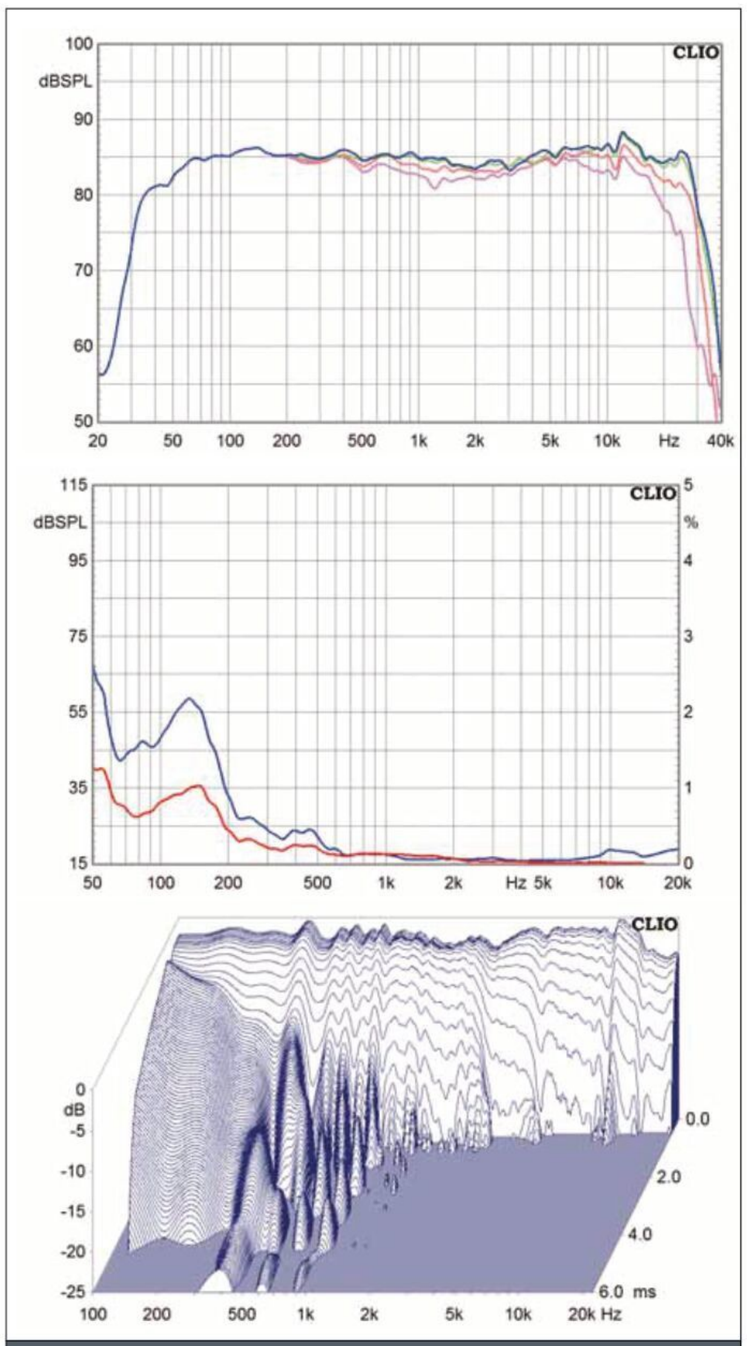


With the Kim, there's nothing but buttery smooth precision. From the effective range of the 20-centimeter woofer up to the end of the spectrum. Here, fantastic worlds of midrange and color open up, and I can't detect any limitations. And Kim's bass integrates perfectly. It sounds firm, controlled, but not in the least lean or limited. It sounds exceedingly rich but avoids that bass-reflex single note tone – the tonal variability in the bass range is imposing.

Outstanding: the legendary „Misa Criolla" recording by José Carreras. The drums on this recording are more suitable for judging a component's low-frequency capabilities than almost anything else. On the Kim, it's dry as dust „Pock." Not „pong" with a rat's tail of reverberation, not „tock" because of the non-existent volume, but „pock." You get my drift.

The Kim sounds like a rather large and grown-up speaker and can compete with quite grown-up floor standing speakers. In this respect, our „Ella" has to take a bit of a back seat, which can't keep up with the sheer „impact" of the Kim. When challenged, the Kim is in its element when she plays something like the legendary „Jazz At The Pawnshop" concert with remarkable persuasiveness and the best overview. Even if Rickie Lee Jones shines in an inimitable manner hard on the border of the unpleasant: I find no weak points with this transducer. It may be the best all-round solution for listening to music in normal-sized rooms.

Holger Barske



Measurements

Lab commentary

Excellent craftsmanship, as the measurement test proves. The frequency response reveals extensive linearity with a minimal dip in the presence region, the outstandingly homogeneous omnidirectional sound distribution is noticeable. The bass goes well below 40 Hertz, which is very respectable for a speaker of this size. The average efficiency is 86 decibels; the impedance curve shows eight-ohm behavior with little variation – hence the suitability for tubes. The distortions are extremely low, the waterfall diagram practically flawless – everything fits perfectly.

Fink Team Kim

· Price per pair	10,000 Euro
· Sales	DC Klaassen, Lünen
· Phone	+49 231 9860285
· Internet	www.finkteam.com
· Warranty	2 years
· W x H x D	300 x 854 x 310 mm (incl. stand)
· Weight	approx. 25 kg

lp

Fink
Team Kim

International 1/21

» Fink's Kim is a tremendously well-balanced, perfectly smooth speaker that plays coherently and cohesively all the way. Certainly one of the best in this class.

The Computer Phono Preamplifier

You who are used to and love tube phono preamps with MC transformers, you must be quite brave now: The first platform-based I-can-do-anything phono preamp has arrived.

That's just the company logo, not the standby button: I always fall for that with Gold Note

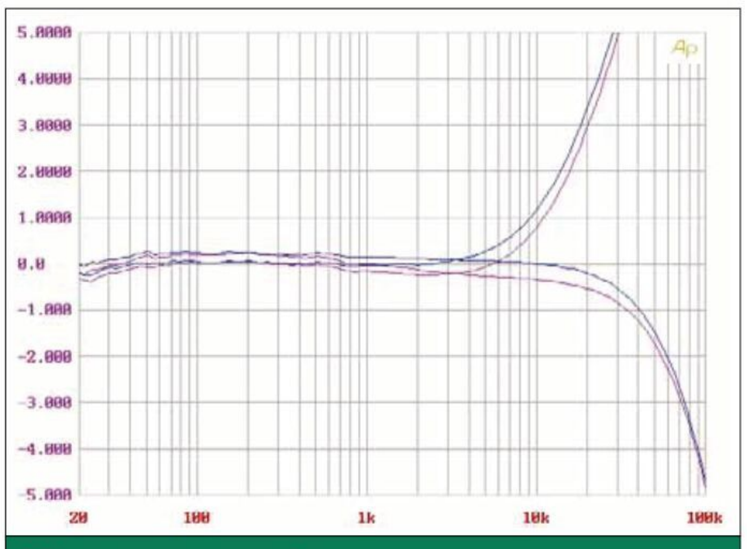
Not to worry: It doesn't have a network jack and doesn't want to connect to the Internet, so it doesn't need a cloud connection to play records. After all. But: Gold Note's brand-new top phono preamplifier PH-1000 already possesses a kind of antechamber to hell - namely a mini-USB socket, via which you can import software updates.

Wait a minute – software? Why on earth would you need a software update to play back records? The standard nerd answer „Because you can" is not the right one in this case, but rather the fact that the PH-1000 offers so many possibilities that it is not yet possible to say exactly with which features the manufacturer will still come up.

Gold Note connoisseurs will recognize the look of the 9,600 Euro device. The housing is exactly the same as that of the company's multitalented IS-1000. This is a phono and streaming-capable integrated amplifier solution whose exceptional qualities have already convinced us.

Of all the external features that the PH-1000 inherited from the IS-1000, my heart beats most for the outstandingly sharp and high-contrast color display. In conjunction with the knob on the right side of the unit, it allows access to an unrivaled array of functions. The rotary knob has a touch function, which also turns the device on and off. I remember trying unsuccessfully with the IS-1000 to get any response by pressing or touching the „button-shaped" company logo with the standby LED directly below it on the left side of the device.

The PH-1000 sits in the standardized cabinet of the manufacturer's 1000-series



Measurements

Lab commentary

The Gold Note's frequency response chart reveals minimal deviations from the standard characteristic line in RIAA mode. The bandwidth reaches up to about 70 kilohertz; the channel deviations are about 0.3 decibels. The second set of curves shows the effects of the „Enhanced" mode. This is the addition of a fourth time constant to the equalization, the so-called Neumann cutting characteristic equalization. In MM mode, the PH-1000 achieves 49.2 decibels of gain even at the minimum level setting. In MC mode, a maximum of 78.2 decibels is possible; we measured at 68.2 decibels. The signal-to-noise ratios are then 82.9 and 61.5 decibels(A), respectively, the channel separations 75.2 and 58.7 decibels. Distortions at 5 and 0.5 millivolts at the input are 0.013 and 0.1 percent, respectively. The device consumes a reasonable 18.2 watts of power.

A maximum of three cartridges can be connected to the PH-1000; two of them quite classically via RCA cable, one via symmetrical XLR connection. This is a „true" ground-free balanced input, which evaluates only the differential signal between the two hot conductors of the pickup coil - as the pure doctrine provides. By the way, the „intelligence" of the device prevents it from operating MM pickups symmetrically. The input jack variety doesn't end there – there is another pair of RCA and a pair of XLR inputs. Their functionality depends on which PH-1000 version you have chosen. Should it be the (more expensive) „Line" variant, both can be used as high-level inputs. This is a relatively rare feature in a phono preamp, and it only makes sense for one particular reason – the PH-1000 Line has a volume control function. You can configure each of the three phono inputs either as „Stage" or „Preamp", the latter two inputs only as „Preamp". In this case, an additional read-out option pops up in the display, and when you select it, you can adjust the output level in a hundred steps.

You rightly assume that you could plug a power amplifier directly into the PH-1000 Line and do without the classic high-level preamp. And you would still have two inputs for connecting additional sources. This option becomes tempting due to an especially low-impedance Class-A output stage. By the way, this is not the only option regarding the output stage: If you really want to go for it, you can hook up one of two potent external tube output stages, which are housed in a cabinet of the same size. You can choose between a six-tube and a twelve-tube version called „Tube 1006“ and „Tube 1012,“ respectively. Oh, that‘s not conclusive enough for you? No problem, you may also be interested in one of the big external power supplies PSU-1000 or PSU-1250. Right, in the maximum configuration, a PH-1000 would then consist of three full-size components.

We will stick to the functionality of the basic version here. The two additional input jack pairs become connection options for external cartridge load resistors if the built-in twelve values between 10 ohms and 100 kilohms should not be enough for you. MM users, by the way, can be happy about six possible load capacities. But that‘s not all: The fundamental gain of about 40 decibels in MM mode and 65 decibels in MC mode can be increased or decreased by up to nine decibels in one-decibel steps, depending on the cartridge. In practice, this provides about 74 decibels of maximum MC gain, which should be enough for even the most extreme quiet MCs.
Oh, you want even more? No problem: How about something like 40 built-in equalizer curves from all over the world and the possibility to define and save four more curves yourself?
Incidentally, this is one place where the color display really makes sense: It shows the progression of the equalizer for each curve so that you already get a graphical idea of what you‘re getting into. I must confess that I don‘t own any historical records for which it would be possible to say precisely with which characteristic curve beyond the standard RIAA curve they should be played, but that doesn‘t matter: I have learned to appreciate curve variety as a luxurious sound control, with which many a crude recording can be transformed into a listenable one. Outside of any norm and only following personal taste. Those who suspect few classic high-end ingredients and a lot of modern high tech in this device are right to do so. The actual phono preamplification takes up relatively little space and is, of course, realized with the most modern integrated components.

Everything can also be set with the remote control, but you need to see the display

Teammates

Turntable
· TechDAS Air Force III / Räke SME 509

Cartridge:
· Excalibur Platinum

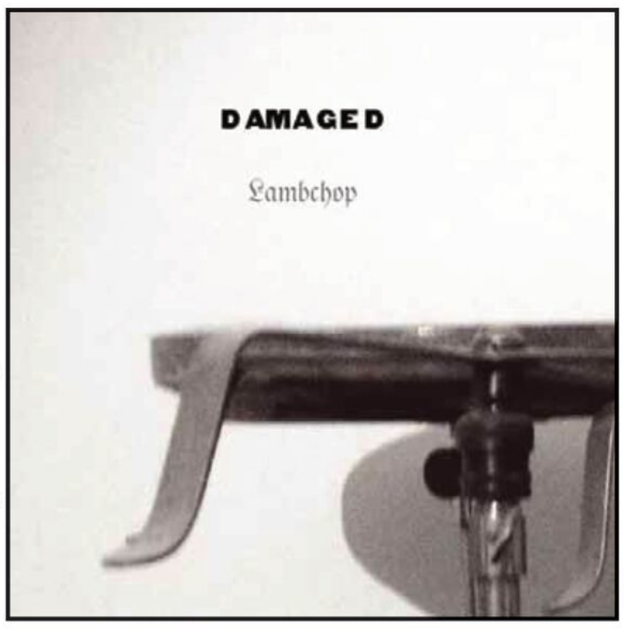
Integrated amplifier
· Thivan Labs 811 Anniversary

Loudspeaker
· DIY Mini Onken / Focal / JBL

Competitors

Phono preamplifiers
· Malvalve preamp three phono
· Canor PH 1.10

Plenty of jacks for a phono preamp. Two inputs can also serve as high-level inputs



Lambchop – Damaged

What we played

Lambchop
Damaged

El Caco
Hatred, Love & Diagrams

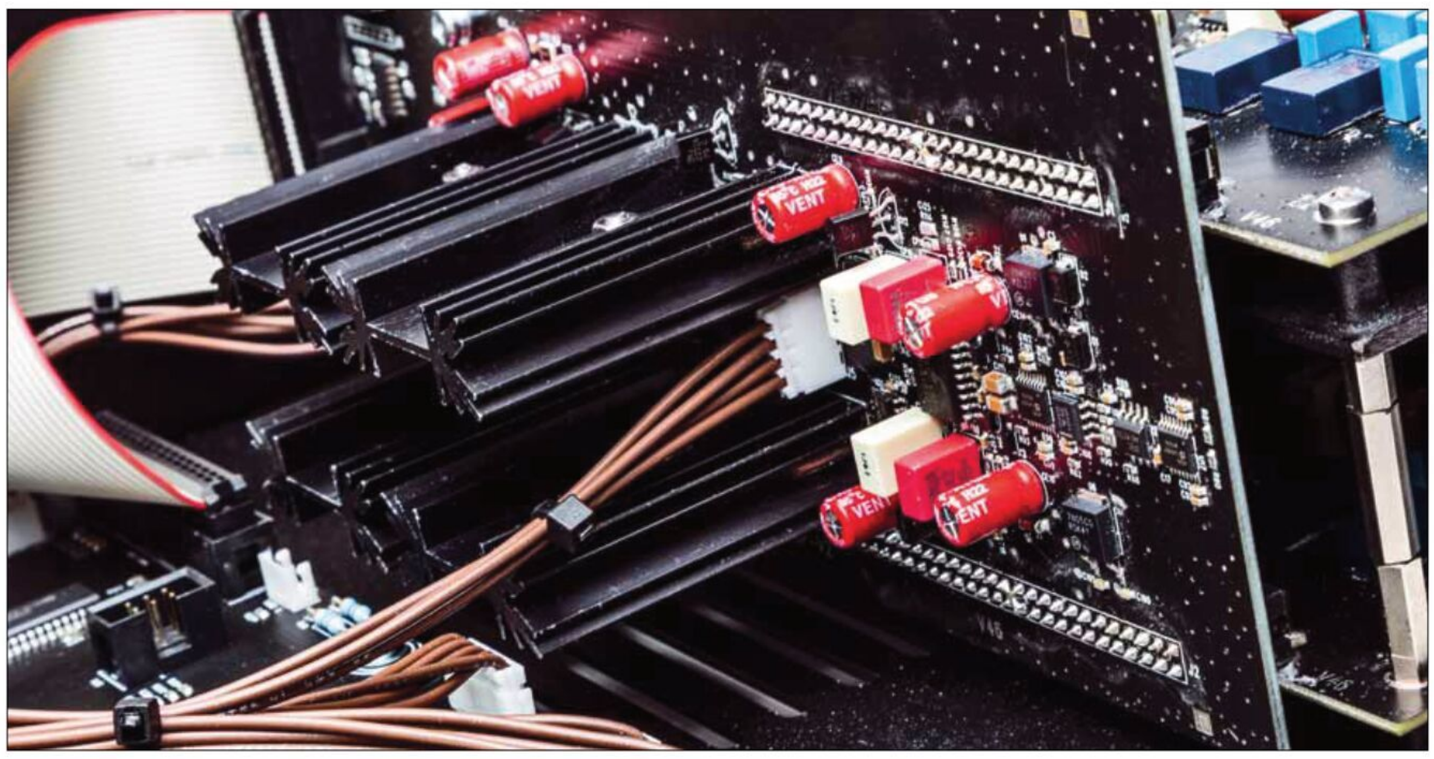
Eva Cassidy
Nightbird

Ralph Towner
Works

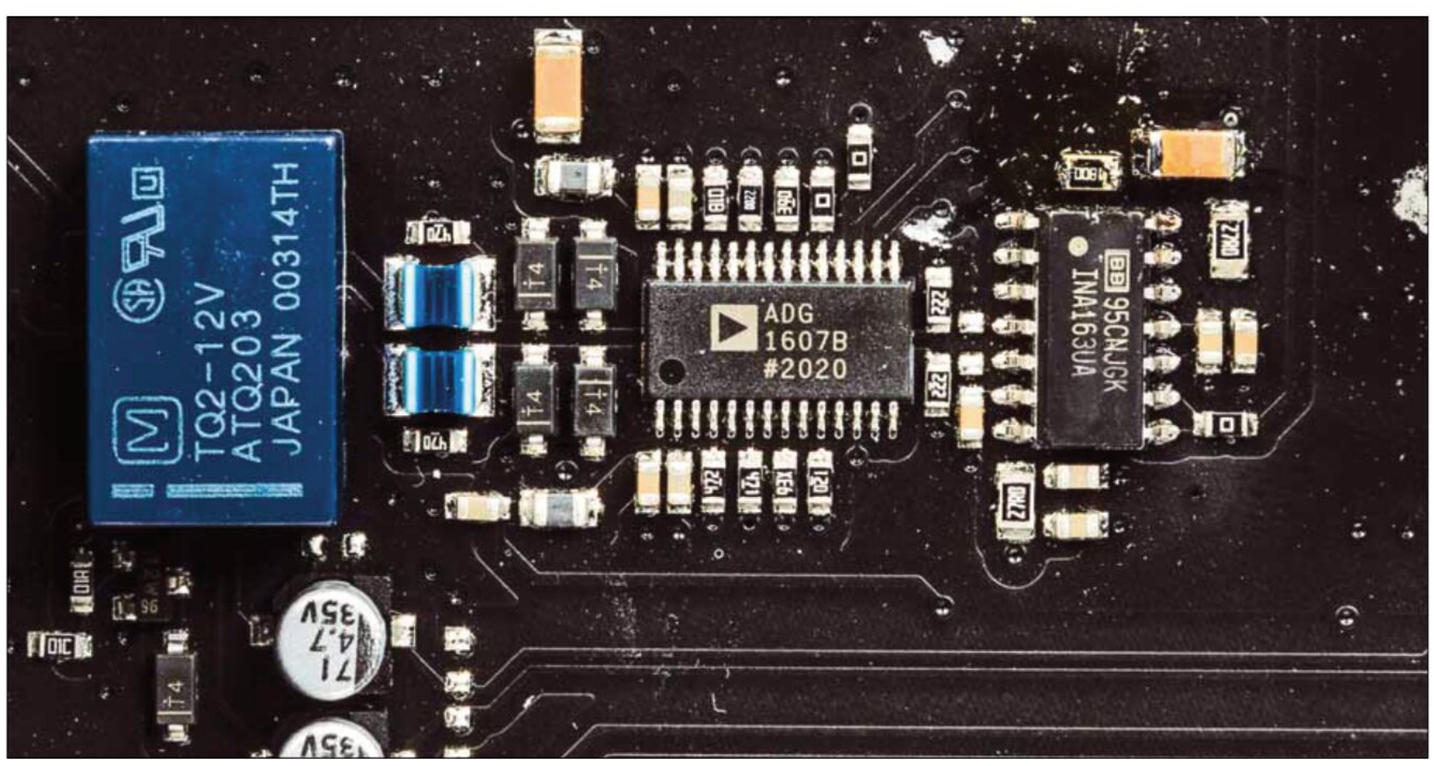
Electronic switches place a multitude of passive components appropriately in the signal path, resulting in the desired equalization and gain. The most significant part of the electronics is reserved for digital control technology, coupled with a luxurious power supply that feeds the individual modules via various regulators downstream of an encapsulated switching power supply.

Fortunately, the sound of the PH-1000 is not in the least as technical as it might have been feared given the design. And who could prove this better than the feel-good sound experts from Lambchop? We play „Damaged“ and leave it to the excellent Excalibur Platinum to do the honors of carving out the tunes from the groove. The team works so well that my desire to try out other pickups immediately tends towards zero. Kurt Wagner's unique organ impressively detaches itself from the compound of his up to 18-member band

Mysterious things happen here: This circuit board is the digital control center



These regulators prepare the voltages for the sensitive amplifier stages

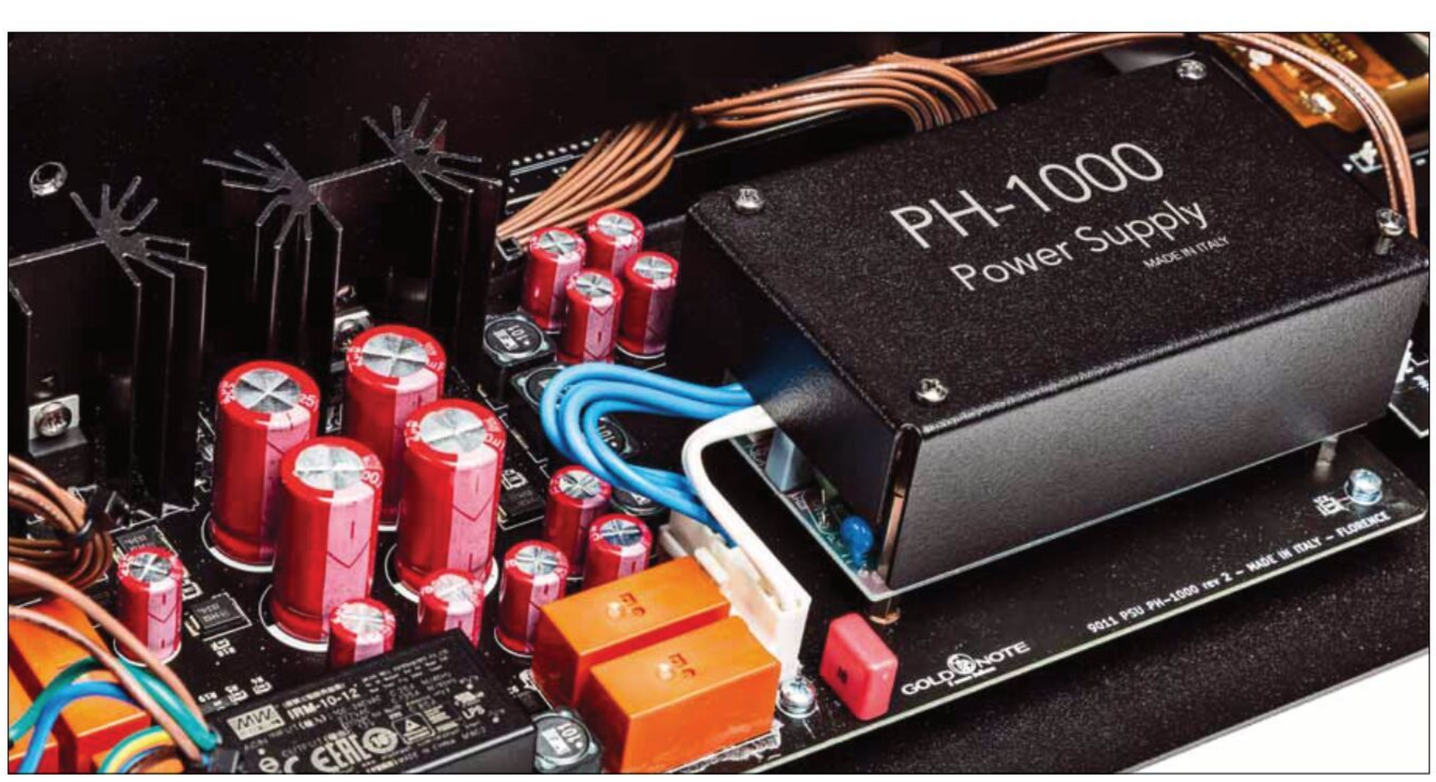


Digitally controllable switch chips take over the parameterization of the amplifier circuitry

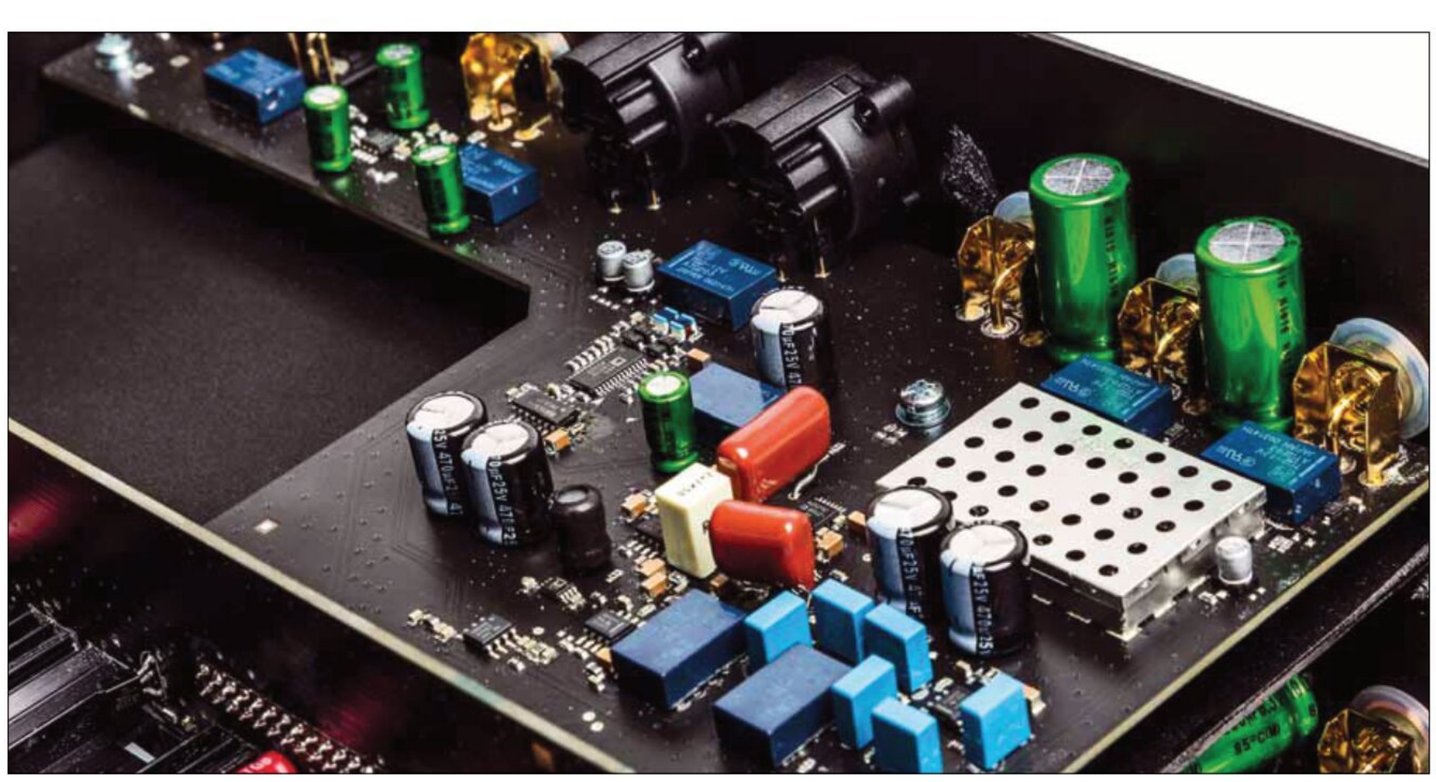
and comes almost threateningly close to the listener. Not huge and dominant, but precise, perfectly circled, and spot-on. Such audiophile virtues are not so important to me when listening to music. Still, I must admit that this works exceptionally well here and increases the entertainment value of the performance. The sound is just right. The sonority, the gentle and yet so carefully resolved overall action, has an extraordinary class. Contrast program? Here you go. We try it with the 2012 work „Hatred, Love & Diagrams“ by the Norwegian rockers from El Caco. And here, too, the front end's outstanding analytical skills come into their own: Excalibur and Gold Note break down the album, which in places sounds like Tool on a stoner rock adventure, into its rich and warm rhythm section, from which the vocals stand out impressively clear and versatile, framed by exceedingly solidly intoned guitar work. This sounds good – I hardly dare to say that in this context.

Eva Cassidy handles the female vocal part of this listening session. We listen to all four records of the great release called „Nightbird“ and let ourselves be captivated by the singer's bell-clean organ in an atmospherically dense environment. Dreamlike beautiful, dreamlike precise – it can't be done any better.

Holger Barske



A switching power supply sits under the metal lid of the power supply



The phono preamplifier itself has a strictly channel-separated design

A second switching power supply keeps parts of the digital technology „alive“ in standby mode

Gold Note PH-1000

· Price	from 9,600 Euro
· Sales	TAD Audiovertrieb, Aschau
· Phone	+49 8052 9573273
· Internet	tad-audiovertrieb.de
· Warranty	2 years
· W x H x D	430 x 135 x 375 mm
· Weight	ca. 12 kg

lp

Gold Note
PH-1000

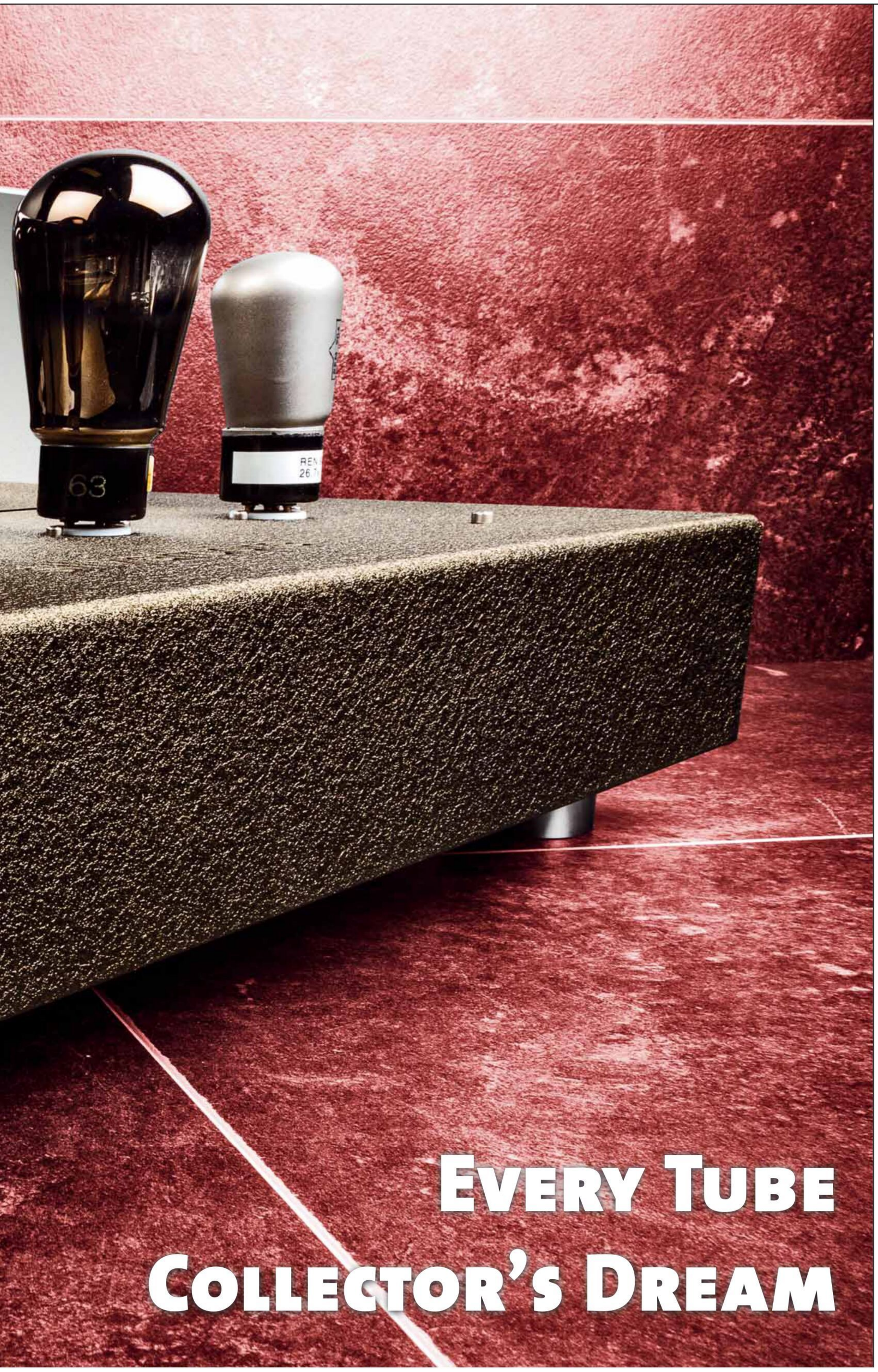
International 1/21

» With the PH-1000, Gold Note delivers a definition of high end: dreamlike sound, technologically advanced, and equipped for all eventualities.

Now available

Michael E. Brieden Verlag GmbH
The Test-Specialists
Duisburg · Germany

REN 904
6,6 26



Teammates

Turntable:
- TechDAS Air Force III / Reed 3p / Skyanalog G-2
- Levar Ultimate / Ultimate Carbon 12" / Skyanalog G-3
- Thorens TD 124 DD / Thorens SPU

Phono preamp:
- Malvalve preamp three phono

Preamplifier:
- NEM PRA5

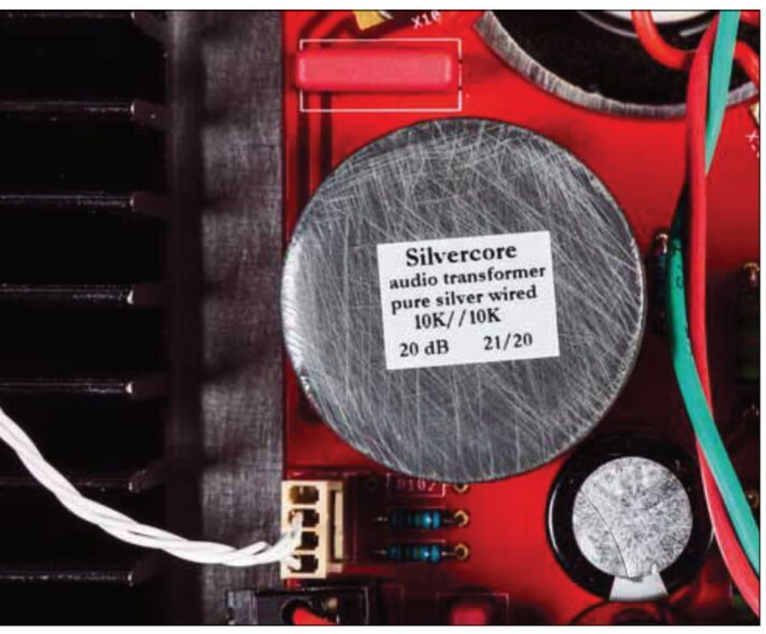
Loudspeaker:
- Dynamikks Monitor 10
- DIY Focal / JBL

Competitors

Integrated amplifier:
- Riviera Audio Levante

With the „Collector's Edition", the small but exquisite Leipzig-based manufacturer Silvercore presents a range of tube amplifiers unlike any other on the market. Their most prominent feature: lots and lots of transistors

The fan is indispensable due to the heat dissipation of the device but inaudible



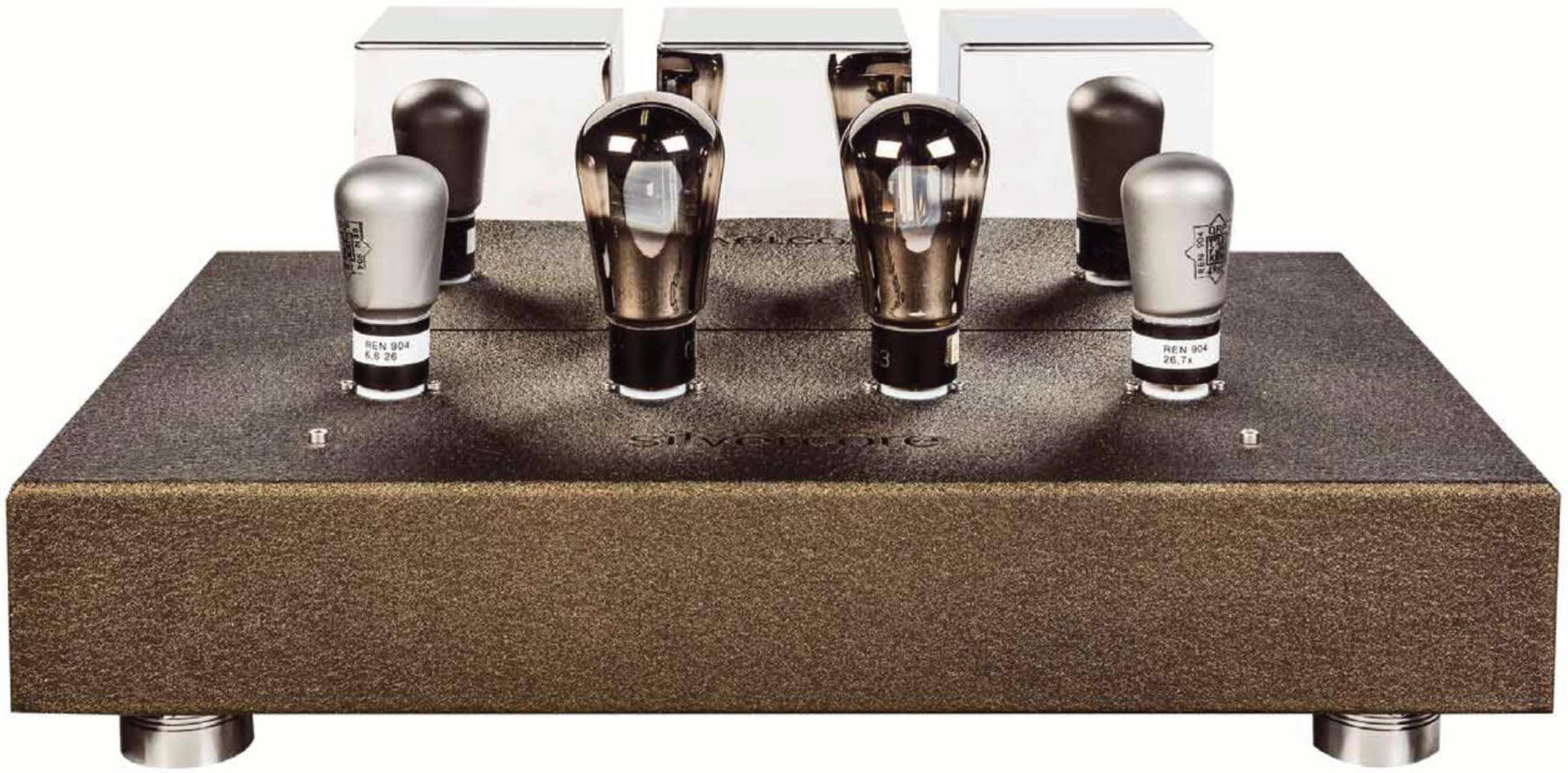
The silver input transformer also allows genuine symmetrical connection

Beg your pardon? Semiconductor? In a tube output stage? Keep away from me with these „three-legged fuses"! Slow down. It's not that simple in this case. The Collector's Edition amplifiers serve to provide the oldest, rarest, and weakest tubes with a working environment that makes it possible to listen to music in a feasible manner. At the same time, the sometimes sinfully expensive gems should not be stressed to their limits so as not to shorten their lifespan unnecessarily.

Nevertheless, the unique sound of each individual „treasure" should be preserved and made audible, and that even on at least semi- „normal" speakers. Do you think that sounds like magic? It kind of is, and besides company owner Christof Kraus, a whole bunch of brilliant people from the tube scene have invested a lot of brainpower to make this kind of „exoskeleton for tubes" possible. We are talking about such illustrious people like the American design legend Jean Christophe Morrison and the Korean Dr. Stefano Bae, managing director and chief developer at Silbatone Audio. Yes, exactly, the ones who always show how excellent music reproduction once was in front of a packed house at the High End in Munich.

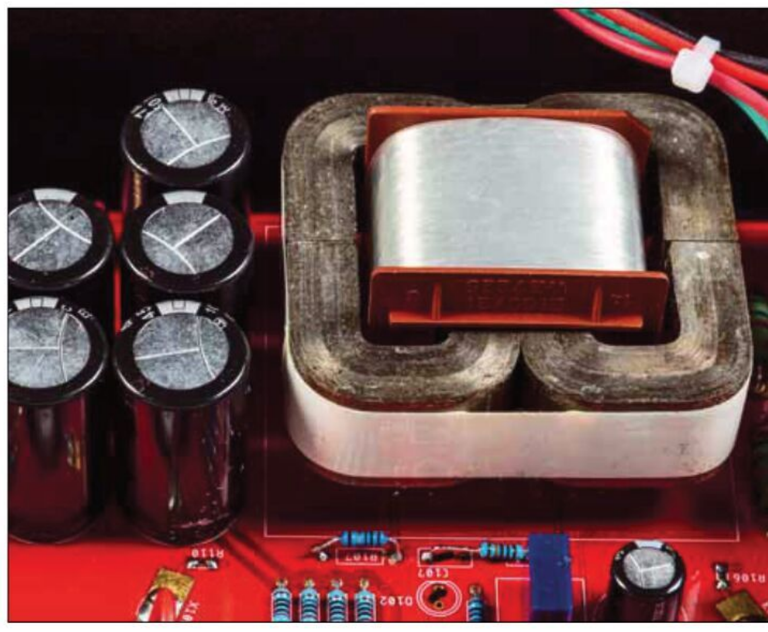
At around 20,000 Euros, our Collector's Choice variant is by no means cheap, but it's also a once-in-a-lifetime opportunity for special people.

Namely for those who have triodes beyond the ubiquitous 300B on their shelves. Each of these amplifiers is built specifically for its intended use. There is a much cheaper version that costs 7500 Euro, which is intended for the widely used 2A3 and uses a „sleeper" type in the input, which I shall not name if possible. „Sleepers" are exciting tubes for audio purposes that no one has on their radar yet, and they are still available at correspondingly low prices. However, our Collector's Edition is intended for a completely different type of tube, namely the early European post tubes that saw the light of day between about 1928 and 1940, first and foremost the famous RE 604 and its derivatives. With the RE 604, under normal conditions, just under two watts can be realized, which limits the type and number of matching speakers quite a bit. In the Collector's Edition, 13 to 15 watts are possible with the tube – that's quite different. The voltage amplification on the input side should, of course, be faithful to the style and fit it. Christof Kraus puts this job in the hands of a straightforward circuit based on a REN 904, which operates on a large choke in the cathode branch. A carefully shielded input transformer with silver windings is connected in front. This arrangement provides enough voltage to give the RE 604 a run for its money. When Telefunken popularized these tubes in Europe, many similar types were created, all of them relying on the so-called „Europasockel". These were four-pin (for the larger, directly heated) and five-pin (for

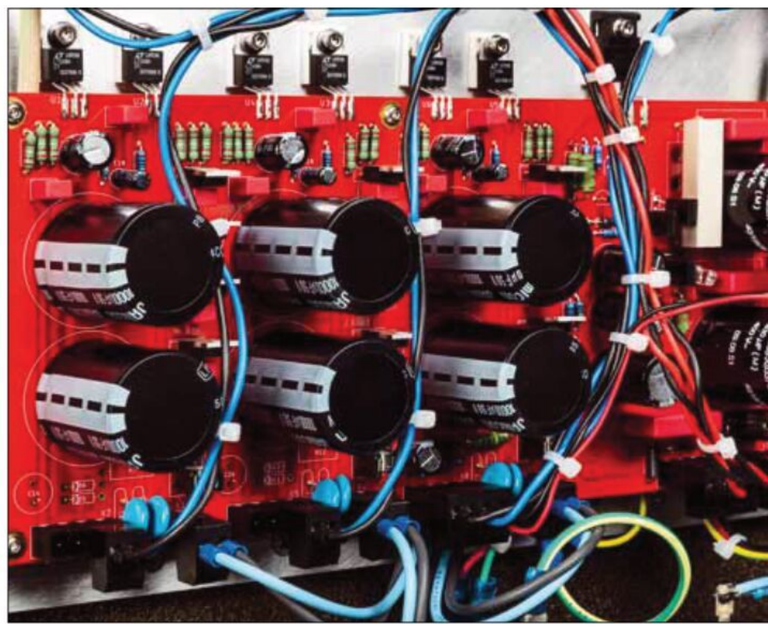


The standard equipment is part of the delivery: Telefunken REN 904 and RE 604

The „Europa tubes“ from the twenties and thirties are a terrific choice. Never could they be used to their sonic potential as here



The high-inductance choke for the input tube



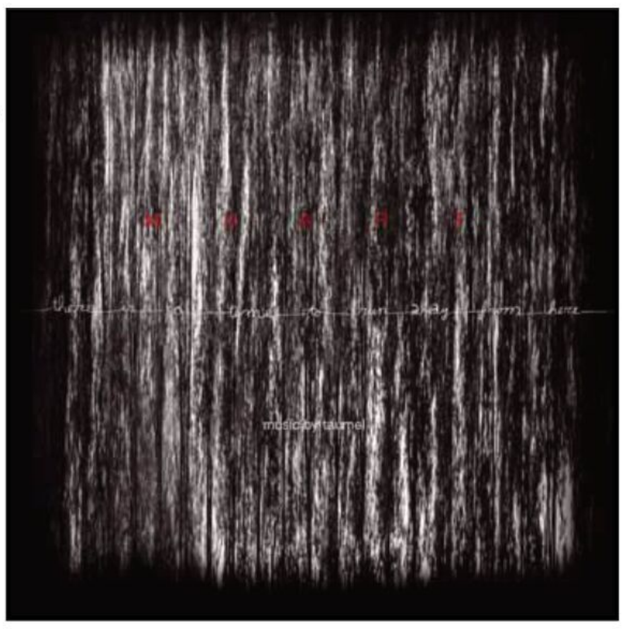
Some of the numerous regulator circuits of the power supply

indirectly heated tubes, which needed one more pin) connection types that were very popular for a while. Also, a heating voltage of four volts had become accepted for these „Europa tubes“. The Collector's Edition provides a pair of sockets for five-pin input tubes and one for four-pin end tubes; all are heated with four volts.

For the pre tubes alone, I can find 25 different types; for the output tubes not less. These products from the early days of electronics, although produced in millions, are now rare collector's items, and a good RE 604 can easily cost 500 Euros. A whole series of Siemens Klangfilm tubes also fall into this category. These are practically invaluable nowadays, even if Telefunken produced them.

To operate the sensitive and not very powerful little guys sensibly, the designers invented a tricky circuit that connects a transistor – in this case, a MOSFET – parallel to the tube. The whole thing „rides“ on a constant current source, also realized with semiconductors, which drives a fixed current through the parallel circuit. The tube is controlled so that it only gets a maximum of 20 milliamperes; the rest is taken over by the transistor working in parallel. However, the tube determines the voltage across the transistor and thus the signal level. This way, a safe environment is created for the tube, which cannot overload but still gives it muscle – not a bad idea. Of course, this looks simple only in theory; in practice, as always, the devil is in the details, and it took over a year to make the circuit stable and working satisfactorily. If you open the amplifier from below, the construction reminds you of a device with „vacuum participation“, however, only because of the four tube sockets. The lion's share of the technology is of more modern

The two speaker outputs are separate 16-ohm transformer windings and are typically operated in parallel



Taumel – There Is No Time To Run Away From Here

What we played

Taumel
There Is No Time To Run Away From Here

Rickie Lee Jones
Pirates (MFSL)

Anouar Brahem
Barzakh

Paul Kuhn Trio
Live At Birdland

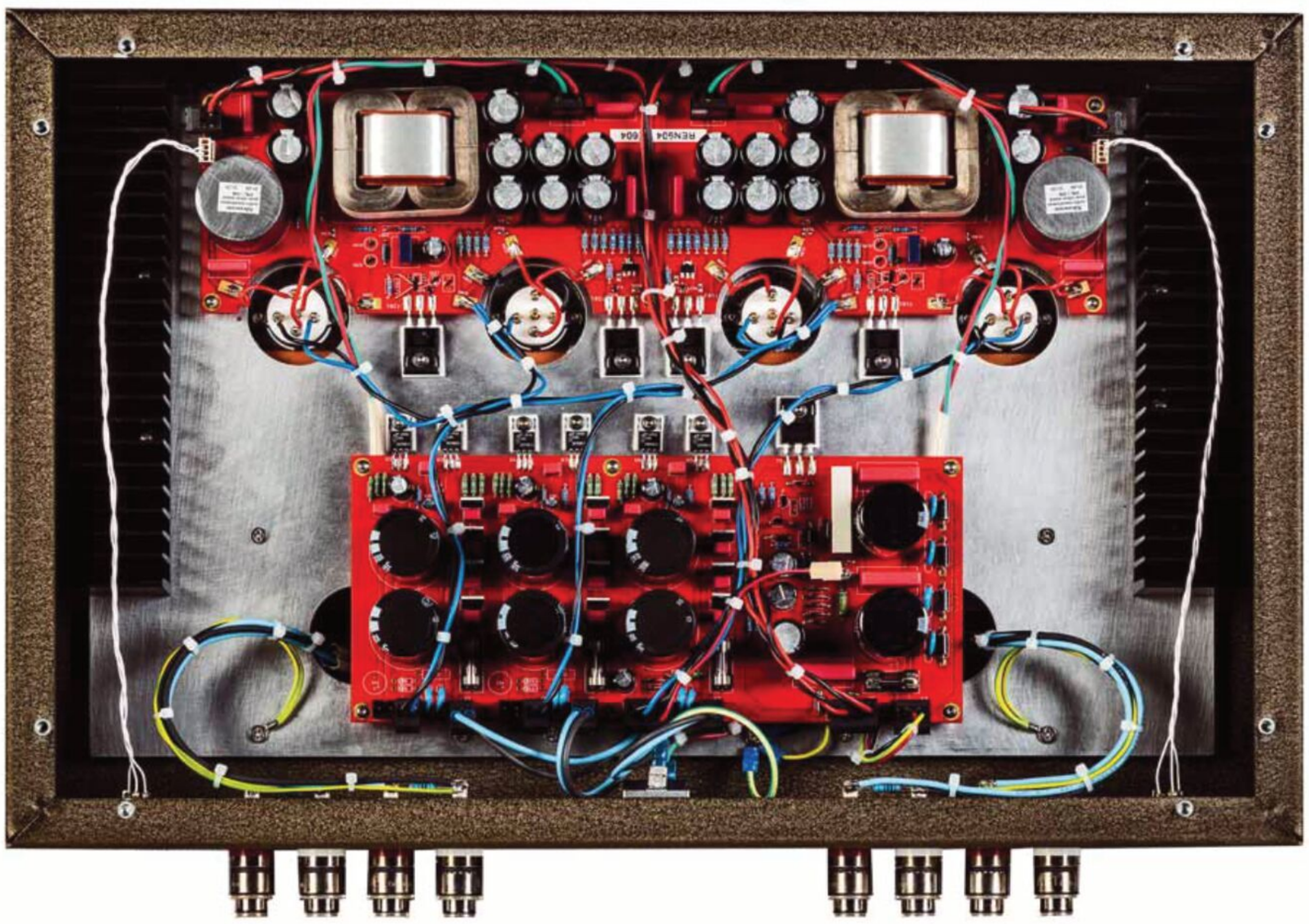
design and housed on circuit boards. Noticeable are the delicate input transformers and the cathode inductors for the input tubes. Otherwise, it's hard to deduce how the device works.

In practice, the device behaves entirely unproblematic. Plug in the desired tubes and switch on the amplifier – after 30 seconds at the latest, there is a signal at the output, and it already sounds terrific after a few minutes. Comparing the different tubes is great fun, and the older ones definitely have their own characters. I like the Telefunken configuration with RE604 and REN904 very much; Klangfilm KL4103 and KL70504 are similar.

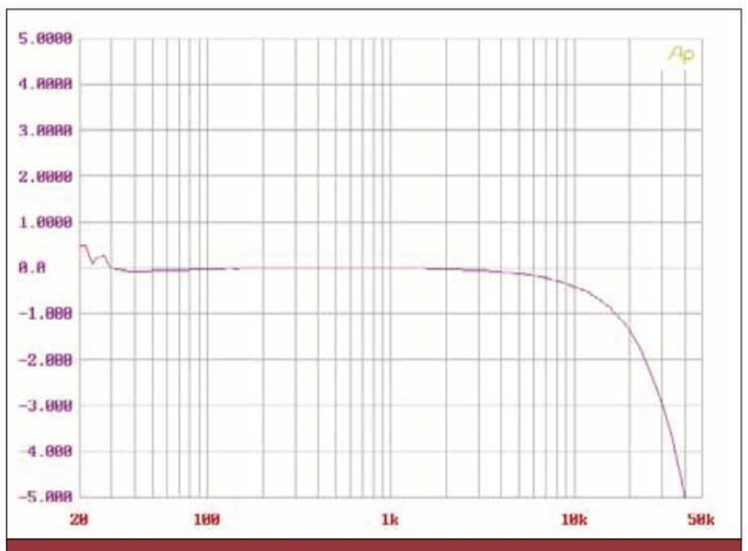
Very punchy in the bass, with fine detailing and tranquil up top. This is a variant that I lived with for a few weeks and with which you can listen to music wonderfully and for a long time. The only tube from current production that fits into the Collector's Choice is the PX-4. It does an excellent job in conjunction with the Klangfilm KL70504 but sounds noticeably different than the Telefunken power tubes. A bit more scratchy, angular, less smooth, but even more direct and throaty in the bass. The PX-4 were still relatively new; maybe there is still something with more break-in time. A lovely alternative for the end tube is the Danish M7 from Elektromekano. Already when switching it on, it behaves quite differently than the previous types; the „pling" of the heating up metal parts in the loudspeaker during the warm-up phase is already completely different. This tube's sound is big, sovereign, resonant, with a tremendously powerful fundamental tone. In the high frequencies, it delivers a very fine and quite concise sound, a bit less potent in the presence range. It definitely has the most aggressive bass of all and sometimes almost displays PA qualities. And then I could tell you for hours about various Valvo and Mazda types, but that would perhaps go too far at this point.

In any case, it is a fact that these thirteen watts are something extraordinary. By no means too little, unless you're hooking up a Canton from the mid-eighties. It's an excellent playground that never plays boringly and displays everything that constitutes authentic tube sound at all times. This part goes right to the top of the list of hard-to-achieve dreams.

Holger Barske



It looks like a transistor amplifier – but it is not



Measurements

Lab commentary

The unique amp also cuts a good figure in the lab. The frequency response measurement with RE 604 and REN 904 reveals linearity up to 30 kilohertz and no bass drop - very good. With an upper limit of three percent distortion, the device manages just under 15 watts, which is certainly enough. The extraneous voltage distance at 5 watts into 8 ohms is 73.4 decibels(A), the channel separation 69 decibels. Both depend somewhat on the tubes and are worthy of all honor. At five watts, there is about one percent distortion. That's alright. The Silvercore consumes a constant 230 watts of power

Silvercore The Collector's Edition

· Prices	approx. 20,000 Euro
· Sales	Silvercore, Leipzig
· Phone	+49 341 86727808
· Internet	silvercore.de
· Warranty	2 years
· W x H x D	555 x 250 x 400 mm
· Weight	approx. 30 kg

lp

Silvercore
The Collector's Edition

International 1/21

» Probably one of the most extreme tube amplifiers on the market: transistors submit to the dictates of glass bulbs from the early days of electronics and make music together in an absolutely wonderful manner.

High #
Pitch
Low b
33 1/3
45
Stop
Air Force V
Premium

TechDAS Upgrade their Smallest Turntable Model

Teammates

Cartridge:
· Sykyanalog G1, G-2, G-3

Phono preamp:
· Malvalve preamp three phono

Integrated amplifier:
· Riviera Levante

Preamplifier:
· NEM PRA5

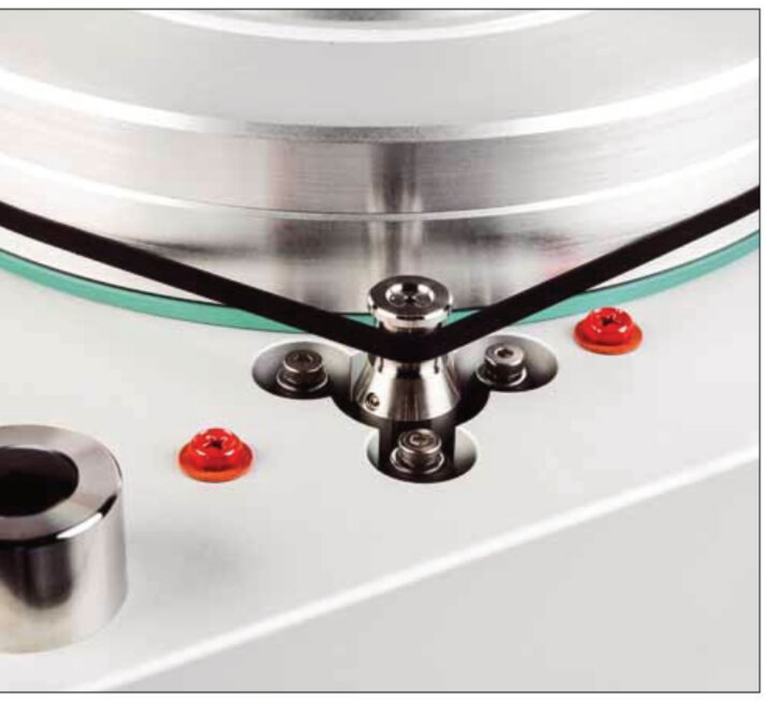
Power amplifier:
· Silvercore Collector's Choice

Loudspeaker:
· Dynamikks Monitor 10
· DIY Focal / JBL

Competitors

Record player:
· TechDAS Air Force III / Reed 3p
· Levar Ultimate /
Ultimate Carbon Oil

The Japanese manufacturer TechDAS has upgraded its smallest model Air Force V to a premium version. What are the benefits of the upgrade?



A built-in motor drives the inner platter – only found on this TechDAS model

To be honest, I don't really need all this stuff about the new TechDAS turntables. For more than five years, I've had a first-generation Air Force III on what is a rather unworthy serving cart from a Swedish furniture discounter, playing records with stoic composure and, in the truest sense of the word, unwaveringly. Saying this, I don't intend to dismiss the possible – and likely – advantages of the „premium" upgrade of the manufacturer's product range. The point is: Personally, I have found my „final solution" with the old Air Force III. One thing has to be mentioned, after all: The machine, which has been subjected to pretty intensive use for five years, still works perfectly as on the first day. Considering the technically complex mechanics such as the maintenance-free air bearing or the vacuum suction of the plate to the platter, I wouldn't necessarily have bet on this at the beginning. But it works and does so without any problems whatsoever. Not even the silicone lips, which function as a seal between the platter and the record, show any signs of yellowing – that's quite amazing.

The current version of the Air Force V also masters these tricks. And there is no reason to believe that reliability and long-term stability would be one iota less critical. You can expect that for a list price of 16500 Euros. The machine was already capable of air suction in its original version „without Premium," which we already recommended to you in 2019.

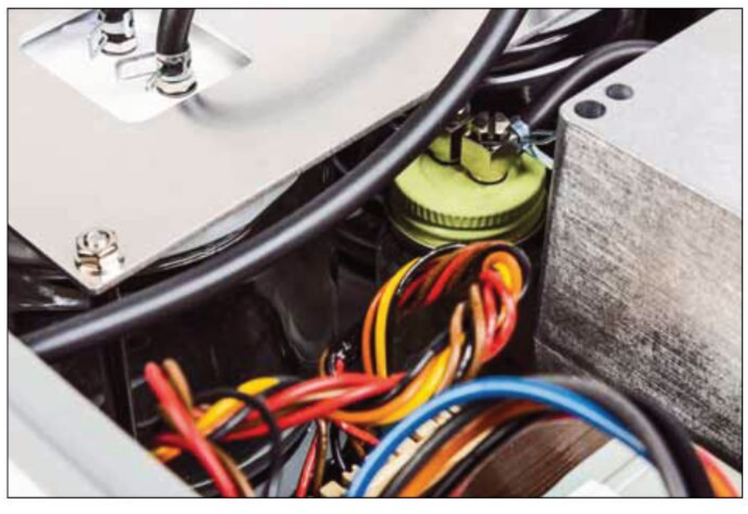
Let's recap a few things before we get into the new model. The Air Force turntables are the brainchild of Japanese designer Hideaki Nishikawa. He has a long career in consumer electronics, having worked for Stax and been responsible for various legendary Micro Seiki turntables. After focusing exclusively on distribution for a

The footprint of the unit is small. The tonearm(s) ultimately determine the space requirements

long time and earning sufficient amounts of „play money“ from it, he founded TechDAS in 2010. The company currently produces six different turntables in the best Micro Seiki tradition. The Air Force V Premium is also physically the smallest model from TechDAS. This is because the motor is integrated into the chassis, while in all other models, it is located next to the platter, familiar from large belt-driven turntables. On the one hand, this makes it easier to decouple the motor and platter from each other. On the other hand, it ensures that the platter can be driven on the outer radius, which provides more gear ratio and, assuming an appropriate motor, more torque.

The glass plate forms the lower part of the air bearing

The chassis of the Air Force V Premium is precisely the same size as that of the Air Force III, except that the drive motor has to be placed to the left of it. The Air Force V is only 312 millimeters wide and 368 millimeters deep, but its actual footprint is determined by the tonearm support(s) - and there can be up to four of them. The big difference between the premium version and the original V is the body of the drive. In the past, it was made of screwed aluminum plates, whereas now it is milled from a solid aluminum block, just like the larger models. Of course, it has milled openings for the motor, the controller, and so on.
Nevertheless, the machined aluminum block alone weighs 19 kilograms. It is supposed to be considerably better at decoupling the drive and platter from each other and isolating the turntable from environmental influences. On top of the chassis sits a glass plate, which is the bottom part of the air bearing. The counterpart to this is the three-kilogram inner platter, which is set in rotation under electronic control by a polished polyurethane flat belt. Again, the actual platter, weighing four kilograms, is placed on top of it.
As you can see: They mean business – 26 kilograms for the entry-level model is ample. And that's not counting the separate vacuum unit. It provides the compressed air for the bearing and the vacuum for the platter suction. By the way, once again, it does this completely noiselessly. I always find myself holding my ear directly to this unit, just to find out whether it is switched on.
The Air Force V Premium comes with a tonearm base of your choice – at least if your tonearm is not too exotic, which would require a completely new construction of a matching cast boom. TechDAS, by the way, has said goodbye to the side-clamped, simpler bases and now only supplies the versions locked via a cone from above, which meets with my full approval.



Here you can see filters for moisture separation in the air treatment system

Now also standard at AFVP: the elaborately fixed arm bases

The inner sealing lip of the system for suction of the plate

John Coltrane – Coltranology Volume Two

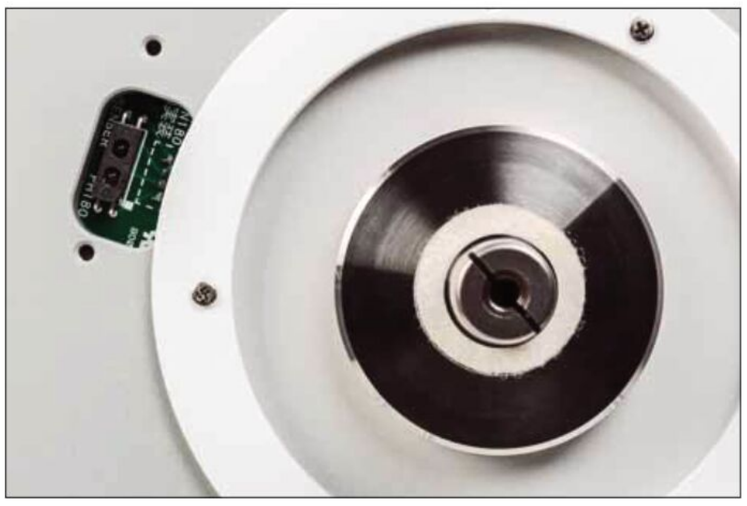
What we played

John Coltrane
Coltranology Volume Two

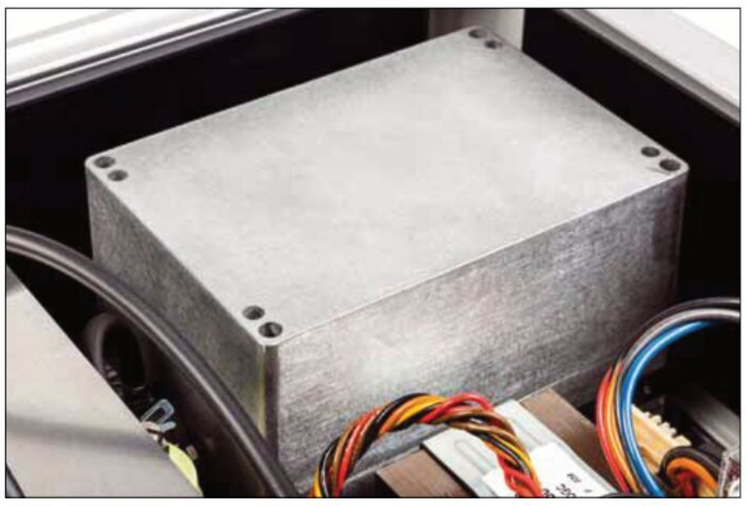
Gary Burton / Chick Corea
Crystal Silence

London Grammar
Truth Is A Beautiful Thing

Mother Engine
Hangar



On the left, the reflex light barrier that determines the platter speed



Effective sound insulation: This box contains part of the air supply system

Whether it makes sense or not, this is the technically more sophisticated and beautiful solution. If you have two Air Force models of this type next to each other, it's pretty easy to make a sound comparison: You can move the entire arm base, including the mounted tonearm and pickup, from one turntable to the other in just a few steps and only have to operate one screw connection.

You only need to check the mounting distance, and off you go with the sound comparison - the replacement can be done in a few seconds. I could get used to that.
The operation of the Air Force V Premium is similarly uncomplicated as that of all other TechDAS models. I haven't switched off the drive for a long time when switching records, the ramp-up times of the drive are too long for that - the speed control with its long time constants simply needs time until it settles. With the „AFVP", I consider the record suction to be the killer feature, too. It turns any record, even a warped one, into a board-flat 7000-gram pressing. The merciless full-surface coupling of the record to the platter is something that no other turntable on the market currently offers, and one cannot overstate its significance. This completely immovable substructure gives the cartridge a chance to scan information without any counter-action from the record. This provides a dynamic range that I don't know from any other turntable series. This ability to explode out of nothing and, in the next moment, caress even the most delicate information out of the groove is only possible with TechDAS. Does the AFVP do it just as well or even better than the Air Force III? No. In this case, the even more massive platter and the stronger drive are simply helpful. But the new V is undoubtedly much closer than the original version. Hideaku Nishikawa, by his own admission, set out to bring similar advances to record playback as digital playback technology has experienced over the years. Once again, I have to conclude that the man has delivered on his promise.

Holger Barske

Two air supplies, one control: Various connections need to be made at the back of the unit

TechDAS Air Force V Premium

· Prices	from ca. 8,000 Euro
· Sales	Ibex Audio, Heidenheim
· Phone	+49 7321 2549
· Internet	ibex-audio.de
· Warranty	2 years
· W x H x D	312 x 168 x 368 mm drive / 350 x 160 x 270 mm air unit
· Weight	approx. 26 / 9 kg

The outer plate weighs another four kilograms

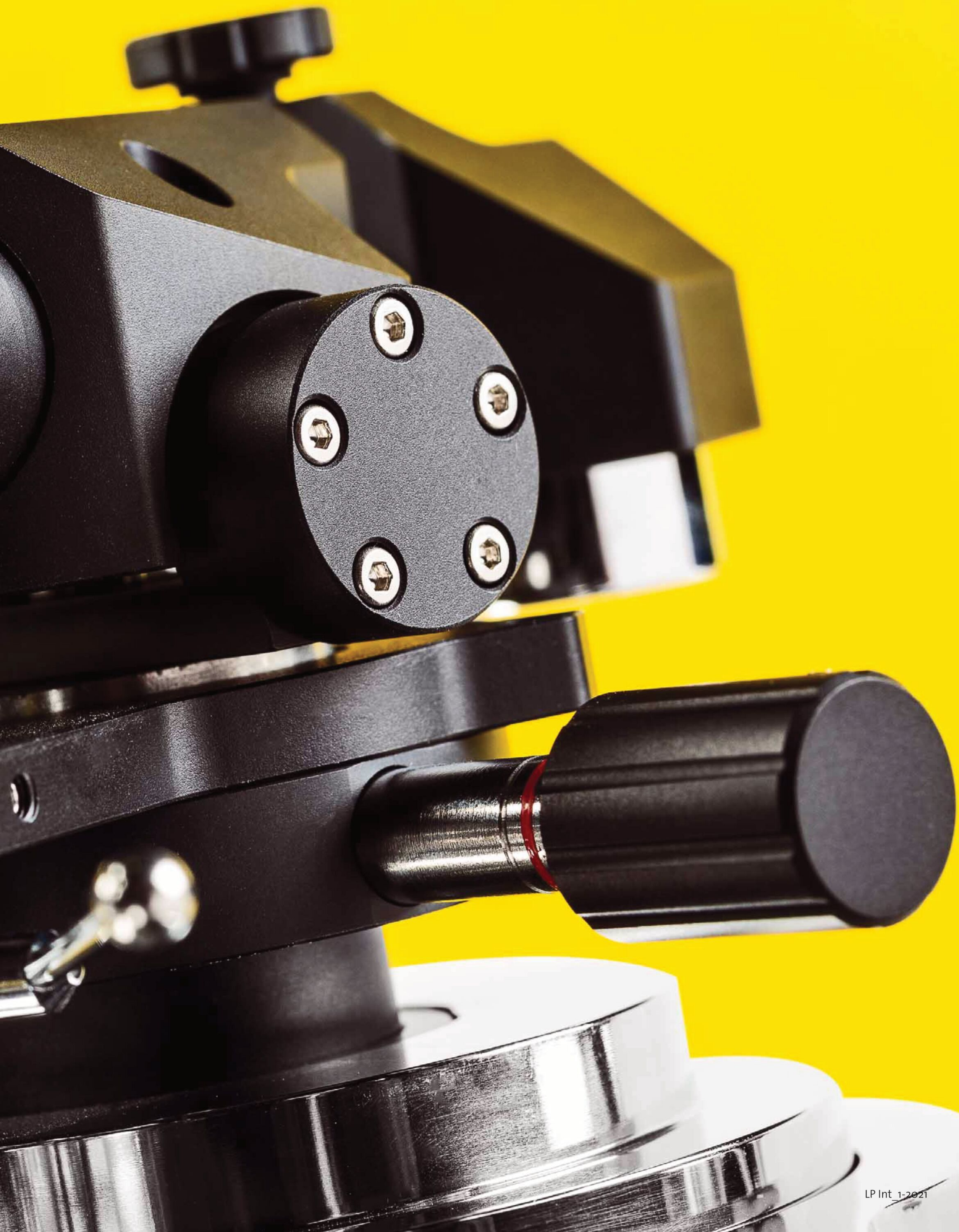
The inner plate weighs about three kilograms

lp

TechDAS
Air Force V
Premium

International 1/21

» 26 kilograms of high-tech turntables with air bearings and record suction are the pinnacle of what is possible. Even the smallest TechDAS only has to fear competition from its own house.



The New Tonearm from Transrotor

Very often, in emergencies, you have to improvise to get ahead. And sometimes, out of an emergency comes something good, new, innovative. Like the new Transrotor tonearm TRA9

Of course, it is a bit presumptuous to speak of an actual emergency in the given context. But it is a stroke of bad luck or a chain of unfortunate circumstances if both suppliers of tonearms to a manufacturer of turntables simply disappear within a year.

This is what happened at Transrotor in Bergisch Gladbach – perhaps not even as the only manufacturer, but certainly as the most prominent.

Here you can see the guide of the counterweight carriage, including the two weights, which can be easily exchanged for cartridges with different masses

The two suppliers are Jelco and SME. The former closed its doors for good a short time ago simply because those responsible had grown too old and retired from business. This step seems to be final because well-informed circles report that the company's entire machine park would have to be renovated to resume business. Therefore, we can assume that even if an investor appears, Jelco's usual favorable price-performance ratio will probably be a thing of the past.

In the case of SME, the situation is somewhat different: In this case, there is an investor. The investor, however, has turned the company's business policy entirely inside out: Instead of continuing to focus on the sale of tonearms in the HiFi section, the company now wants to boost sales of its turntables simply by making SME tonearms available only on SME turntables.

Anyway: At Transrotor, they had to react; their stocks were not infinite. In the premium class, I have seen pre-assembled reed arms – not the worst choice. But in the end, given the tilting SME situation in Bergisch Gladbach, they decided to make their own tonearm and do it right. Around two years of development went into the final design. Some readers will remember that a prototype was on display at the Norddeutsche HiFi-Tage 2020, which was then fine-tuned for almost another year until Räke was satisfied with the result.

The armrest has a magnet that fixes the TRA 9 in the idle position. For transport, there is an additional locking screw that also secures the arm against rough impacts

A sliding magnet adjusts the anti-skating. Under the round cover, which is screwed into place, are the vertical bearings adjusted with high precision

And you can be: In contrast to the „Me Too“ tonearms of many another turntable producer, which almost always manifest themselves as plain single-point arms, the TRA 9 is an absolute highlight in terms of precision engineering. Many a similarity to the more modern SME tonearms cannot be denied, but that's fine by me: I have always appreciated the high standards of manufacturing quality and the high-tech approach of the British as well.

Logically, the TRA 9, which means a Transrotor arm in 9-inch length, is also available with SME compatible sled base, which is probably the fastest way to equip an existing drive with the new arm. While we're on the subject of mounting and shaft: The TRA 9's shaft is protected by a nylon sleeve to prevent scratches in the metal. The tonearm cable has the classic 5-pin connector in the middle of the shaft.

Teammates

Cartridge:
- London Jubilee
- Phasemation PP-500
- Miyajima Takumi L
- Van den Hul Colibri Stradivarius

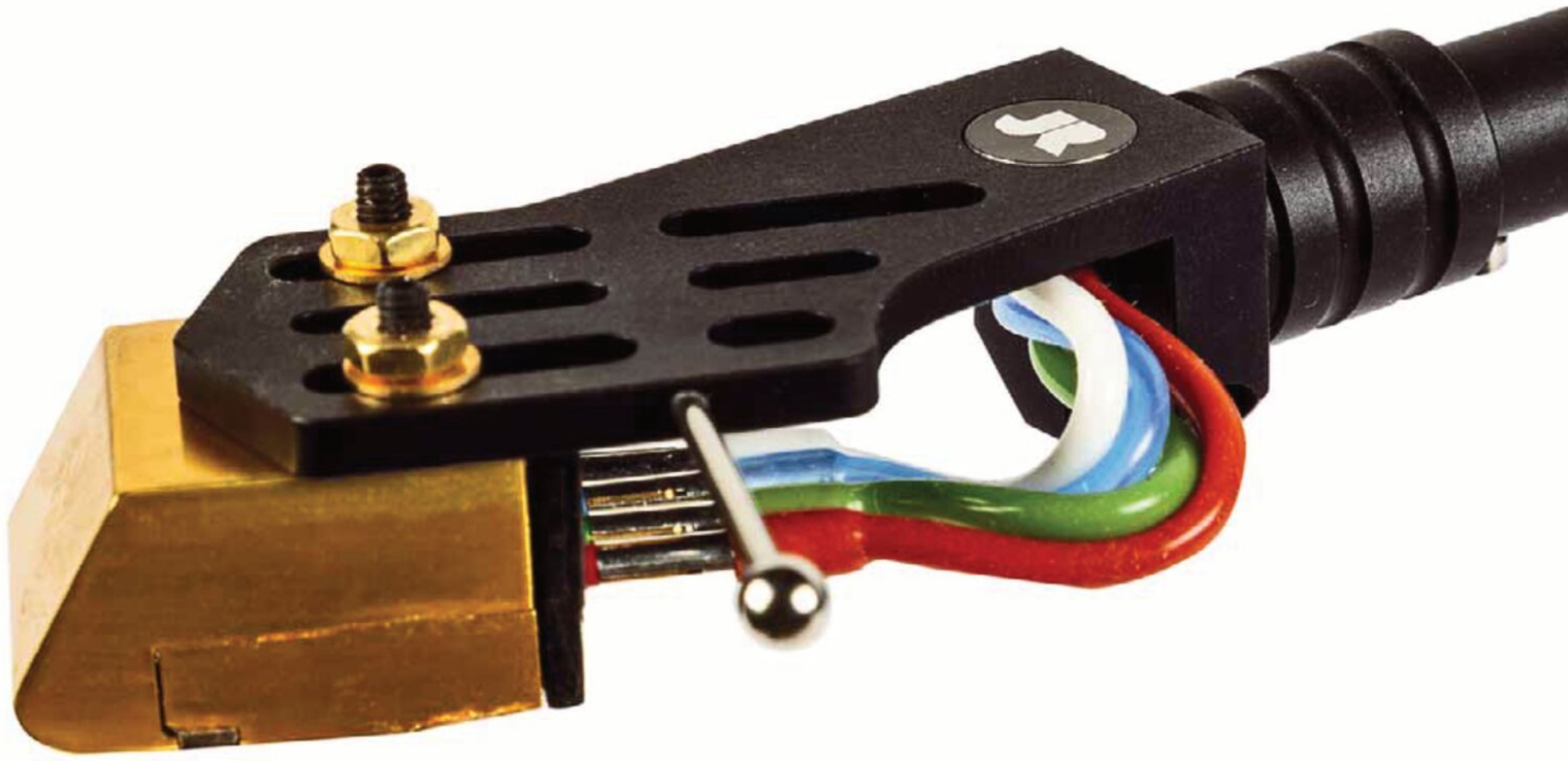
Amplifier:
- Accuphase C-280
- Accuphase E-202
- Dynavector P75 MK3

Speakers:
- K+T Ophelia
- Manger C1
- Audio Physic Avantera 30

Accessories:
- Netzleisten und -filter von Signal Projects, BFly
- NF-Kabel von Signal ProJects, Analysis Plus, van den Hul
- Lautsprecherkabel von Silent Wire
- Basen von SSC, Bfly Audio, Creaktiv

Competitors

Tonearms:
- SME 5009, 5012
- SAEC WE407/23
- Dynavector DV-507 Mk II



The open headshell makes mounting the cartridge much easier, as do the connecting cables, which are insulated with a very soft silicone compound. The azimuth can also be adjusted here

Carl Maria von Weber – Der Freischütz

What we played

Carl Maria von Weber
Der Freischütz

Ry Cooder
Bop ´til you drop

Dire Straits
Dire Straits

The Notwist
Neon Golden

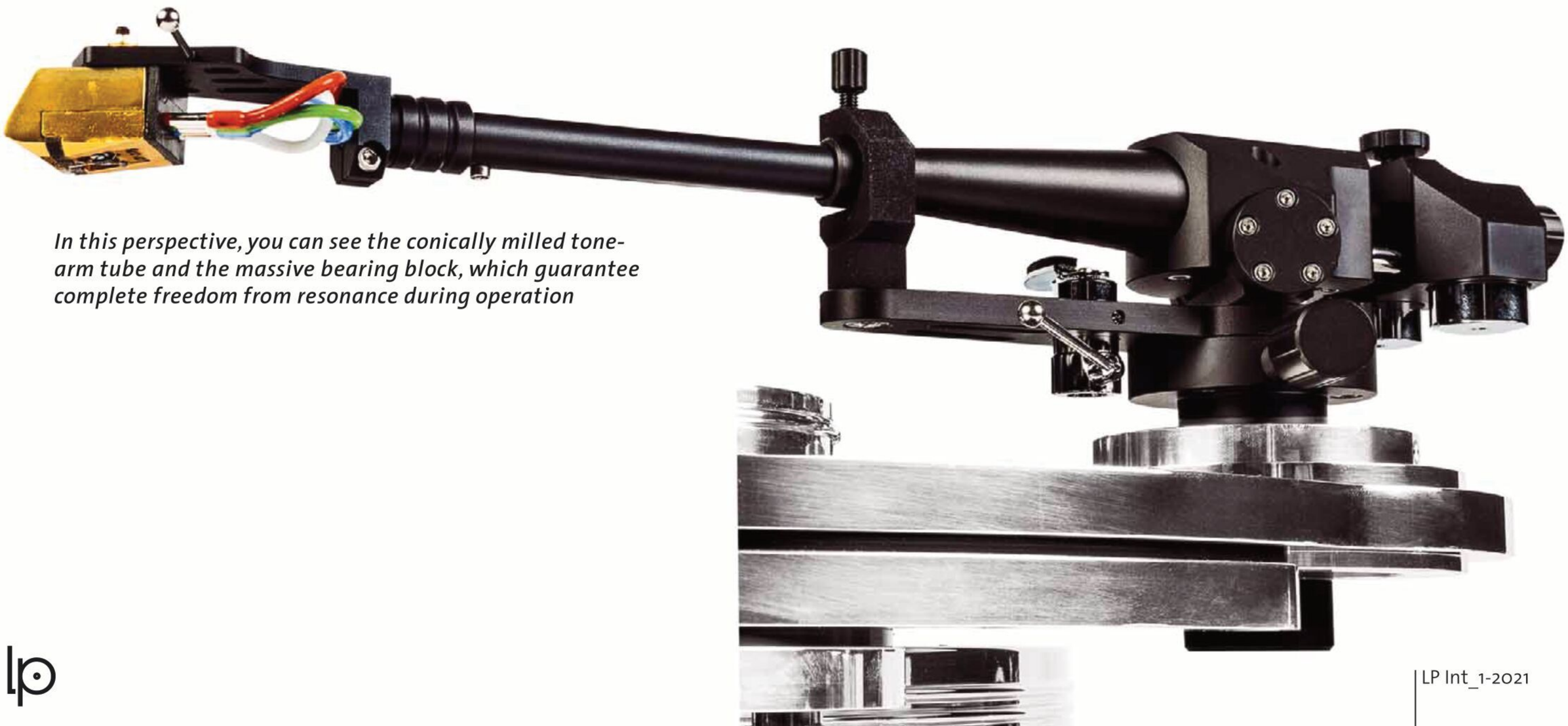
Gustav Mahler
Die neun Symphonien, Georg Solti

Oscar Peterson Trio
We get Requests

Patricia Barber
Café Blue

Let's work our way up further: There is no on-the-fly height adjustment, but the arm can be adjusted in height very precisely with a bit of skill using two long knurled screws with fine threads. The bearing block itself is extremely massive – which also fits well with the tonearm, which is more on the heavier side of medium-heavy arms. While a ball bearing with steel balls was sufficient for the horizontal bearing, such types were not good enough for the vertical bearing: The necessary compromise of minimum clearance and lowest breakaway torque required the use of high-quality ceramic bearings. And the nuts that secure these bearings in position also turned out to be a challenge: None of the nuts supplied had a thread cut so accurate that it lay flat on the bearing and had a uniform contact pressure all around. So they had to cut the supposedly simple components themselves – that's what I call manufacturing depth!
The arm tube is in two parts, and here, too, there was a challenge in development that required a bit more attention than would have been desired in terms of speedy market maturity: resonance problems ultimately led to the two-piece tube being milled from a solid piece, at least on the side of the bearing. The milling is so precise that the parts inserted into each other are not glued but merely secured with screws. Also, the headshell is fastened with a screw – this one can easily be loosened for exact azimuth adjustment. However, as always, this should only be done by someone who knows exactly what they are doing and how they are doing it because a slight misalignment can quickly become much more significant if the movement is too crude. The tracking force is set via the counterweight, the adjustment of which is reminiscent of the method also used by SME for the modern arms. That means: After loosening a fixing screw, the entire counterweight construction can be moved smoothly on guiding rods with the help of a knurled screw and then fixed again after checking with the supplied tonearm scale. Two weights hanging under the „carriage" for a low center of gravity provide the ne-

Jochen Räke looks at the different versions of his new tonearm. The skeptical look is about the coffee but certainly not about the TRA 9



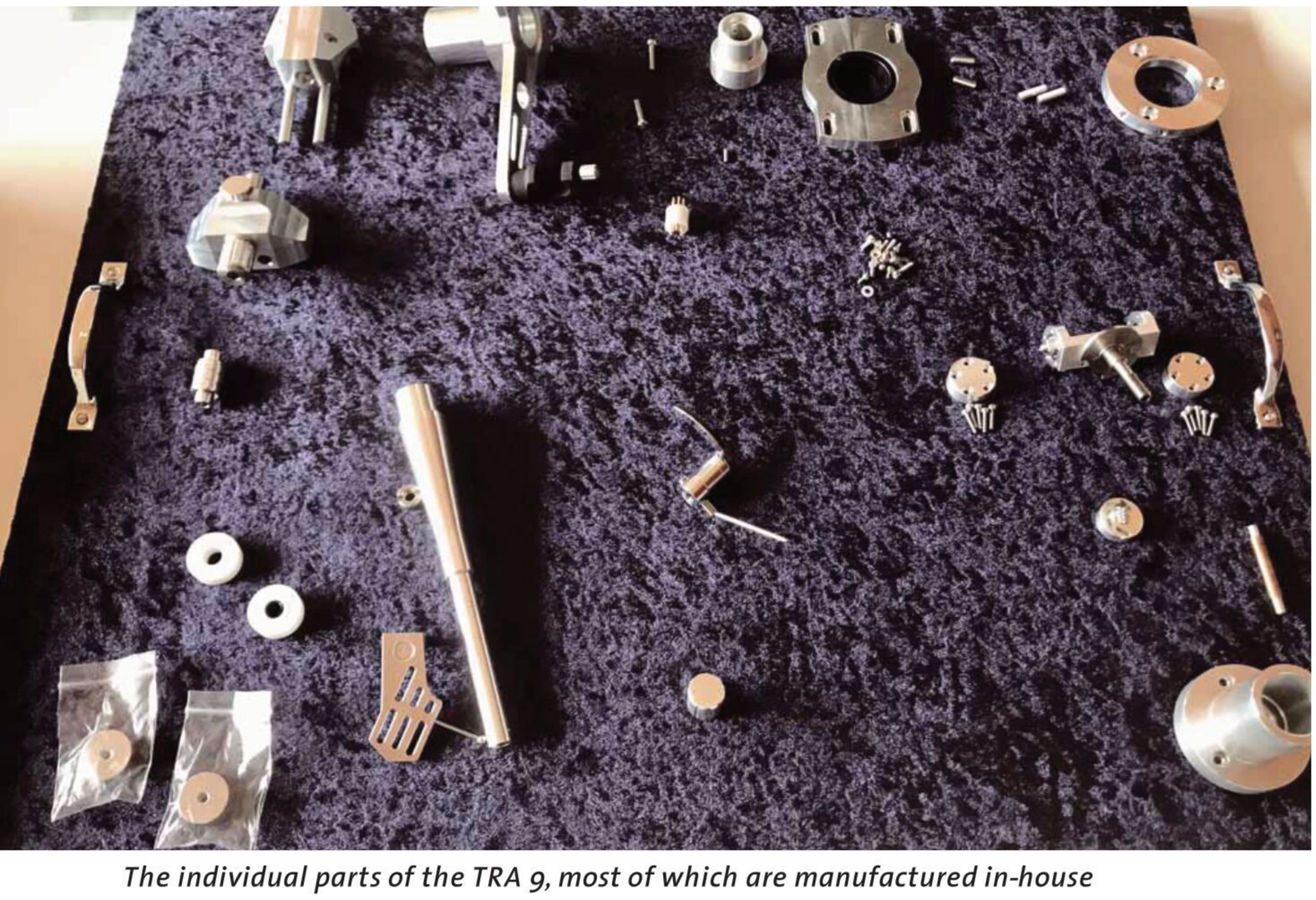
In this perspective, you can see the conically milled tonearm tube and the massive bearing block, which guarantee complete freedom from resonance during operation

cessary mass. For balancing cartridges of different mass, two pairs of weights are included with the TRA 9. The connoisseur appreciates that the moving mass of the arm is located very close around the bearing block. The skating force is magnetically compensated. A knurled screw allows the user to finely adjust the anti-skating, with the red mark on the scale representing a good average for the contact force of most common cartridges – just under 2 grams.

I mounted the TRA 9 on the beautiful Transrotor Alto turntable, which gave us an even more convenient height adjustment solution than with the tonearm itself, thanks to the adjustable tonearm base. When choosing the cartridge, I deliberately wanted to make things difficult for the TRA 9: A London-Decca system, namely the London Jubilee, was the one I wanted to eavesdrop on the first notes. It has to be said that since time immemorial, the English cartridges have had the reputation of only harmonizing with very few tonearms due to their extraordinary needle suspension. Well, this is no longer quite so true for the manufacturer's more modern cartridges – and with the Transrotor arm, a genuinely blissful match has materialized. The combination cooperates transparently and clearly: The arm guides the massive cartridge with sovereignty and control that, at least for me, left nothing to be desired. Carlos Kleiber's legendary first studio recording from 1973, Carl Maria

The most precious and most expensive finish is not gold, but ruthenium, which costs an extra 1,300 Euro, including the polishing work required beforehand. It DOES look good ...

Thomas Pütz, newly hired only for the production of this tonearm, at his workstation where he is assembling the bearings for the next batch



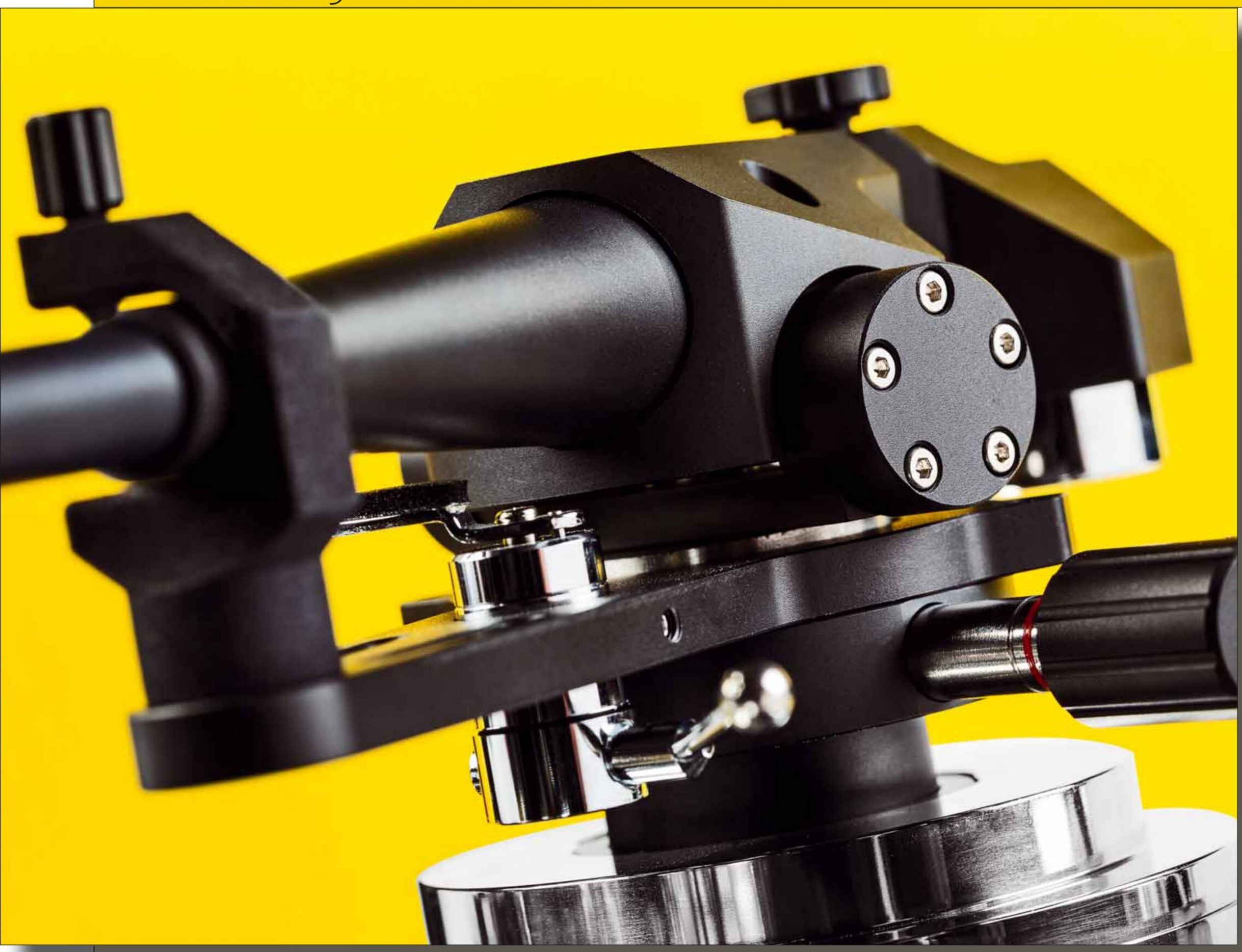
The individual parts of the TRA 9, most of which are manufactured in-house

von Weber's „Der Freischütz" sounds so present, fresh, and dynamic as if it had not been almost five decades since the recording.

The opera, which I always considered quite shallow, unfolds a narrative force and musical momentum that puts it on a par with the legendary „Die Kluge" from the Eterna label. The contrabasses sound fundamental, dry, menacing, or soothing, while the strings in the higher registers come together to form a radiant, shimmering body of sound. Singers are spatially distinguished and can be heard distinctly in their individual timbre in any case – another sign of the unconditional neutrality of the TRA 9. For the tweeter performance, I picked out a record that is always somewhat problematic in this discipline, the album „Bop 'til you drop" by Ry Cooder. My pressing of this record usually does a bit too much in the higher registers – not so with the Transrotor arm, which doesn't change the tonal balance here, but keeps track amidst the exuberant high-frequency energy and makes the whole thing listenable, even in a delightful way.
In the course of the listening tests, I tried out a wide range of cartridges, from light to heavy, from soft to stiff suspension, from van den Hul to Miyajima: The TRA 9 plays together with all these systems exceptionally well and must therefore be considered a perfect all-rounder of the very highest level!

Thomas Schmidt

Transotor TRA 9



· Price ca. 4,300 Euro
(other finishes for a surcharge)
· Sales Transrotor, Bergisch-Gladbach
· Phone +49 2202 31046
· Internet www.transrotor.de

lp

Transrotor
TRA 9

International 1/21

» The TRA 9 is an impressive start for Transrotor in the world of tonearms: Technically elaborate down to the last screw and superb in terms of sound!

High-End Integrated Amplifier with Flexible Inputs

Audia Flight builds integrated amplifiers the way I like them: an elegant but not too playful design meets excellent technology and convenient features

John Coltrane – Blue Train

What we played

John Coltrane
Blue Train

Grant Green
Idle Moments

Jennifer Warnes
Famous Blue Raincoat

Rolling Stones
Beggars Banquet

Al di Meola, Paco di Lucia, John McLaughlin
Friday Night in San Francisco

Antonin Dvorák
Cellokonzert H-Moll,
Mstislav Rostropowitsch,
Berliner Philharmoniker,
Herbert von Karajan

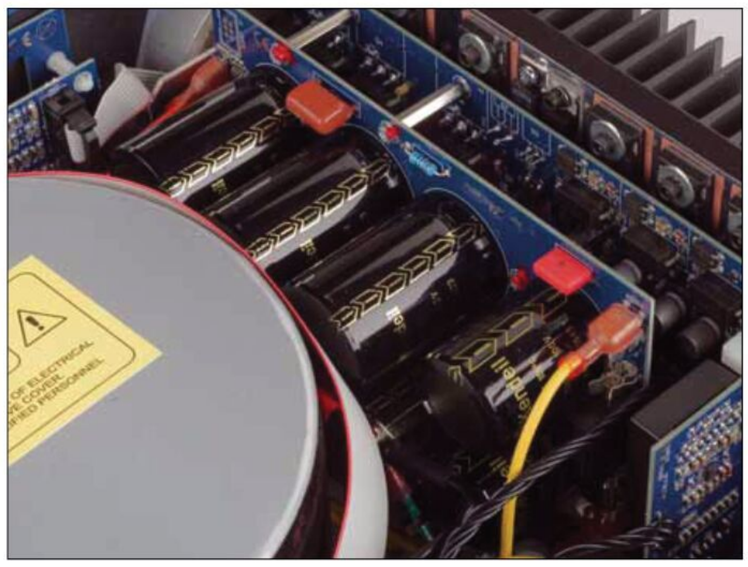
Ludwig van Beethoven
Sämtliche Sinfonien,
Gewandhausorchester Leipzig,
Franz Konwitschny

Gerry Mulligan
Live at the Village Vanguard

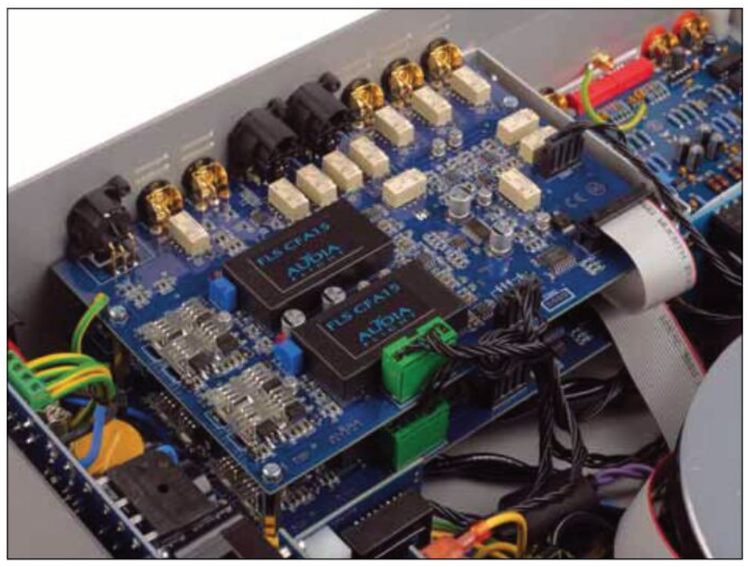
A brief review: A good two years ago, I tested the Audia Flight FLS10 integrated amplifier, which uses the output stages of the reference FLS4 power amplifier, while the preamp section is based on the FLS1 preamp. The FLS10, designed as a line-only integrated amplifier, has two slots in the rear panel for additional options.
And now the FLS9, which according to the data-sheet is the little brother of the FLS10. Well, a little brother with a weight of 25.5 kilograms, I'll take that! A considerable part of this mass, with which one would have stood out even in the „golden" times of the integrated amplifier between all the flagships of Japanese amplifier design, is due to the mighty toroidal transformer specified with a whopping 1000 watts. We can gladly confirm this because – I'm getting ahead of the measurement protocol here – the FLS9 can deliver almost exactly twice as much power to 4-ohm speakers as it does to 8-ohm models. Typically, the current delivery capability of the transformer regularly puts a stop to this with other manufacturers.
So full marks for the Audia Flight, which also has an awe-inspiring 120,000µF filter capacity in the power supply, putting it way ahead in terms of impulse response.
The German distributor Sieveking Sound explains the long development time of the FLS9 with the ambition to build a „small" amp that comes close to the large model FLS10. However, unlike the latter, they had to redesign the entire circuitry here, except for the headphone input. Compared to the FLS10, there are only 12 power transistors per stereo channel, but the signal processing is entirely symmetrical.

As for colors, you have the choice between the silver of the test unit and the Audio Flight-typical anthracite – both exquisite options. In contrast to the past, not only the front panel but the entire case comes in the respective color.

All high-level inputs have symmetrical XLR and unbalanced RCA plugs. In addition to the standard 3+2 inputs, there is the option to expand the number of XLR or RCA inputs with a simple input module. The designers at Audia Flight, Massimiliano Marzi and Andrea Nardini, have built the two amplifier paths in mirror symmetry.
The signal conditioning in the preamplifier is done in potted Class A modules that work with the local current negative feedback.
All modules are supplied separately with their operating voltage. The hand-assembled circuit boards have a much thicker copper layer than is commonly used.
Besides the transformer for the audio boards, a smaller transformer is responsible for supplying the digital control section, which is thus completely separated from the audio boards – that's good concerning possible interference.
The two XLR and three RCA inputs can be named in the control section and can also be level-adjusted to a certain extent. A nice feature for differently leveled source devices.
Preamp outputs are available in XLR and RCA, plus an output for a recorder. The phono board is the same as the one offered for the FLS10:



The filter capacitors for the respective channel path are piggybacking on the power amplifier board, ensuring the current delivery capability for fast impulses



The preamplifier section with the partially encapsulated modules sits directly at the inputs. Signal processing is exclusively symmetrical from here on. On the right is the phono board

The mighty toroidal transformer is specified with 1,000 watts and thus defines the ample power reserves of the FLS9

For a surcharge of about 1,000 Euro, it offers connectivity for MM and MC systems, including extensive adjustment via DIP switch. It is automatically recognized by the control of the FLS9 and can be controlled accordingly, also via the included remote control. Only the values for input impedance and capacitance must be set in good old fashion with a fine tool via the DIP switch on the phono board itself.

And indeed, I did not find any cartridge in my assortment with which the phono section did not agree: Even MC systems with very low output voltage were adequately amplified. However, with my old Ortofon MC30 Super with less than 0.1mV, I had to help with the gain adjustment in the high-level preamplifier, but such exotics are not common nowadays.

The elegant remote control in the aluminum housing can be used to control the essential functions of the device

This is how an integrated amplifier should look: Despite the generous equipment, the cabinet's interior looks uncluttered. The power amplifiers are mirror-symmetrical to each other

Teammates

Turntables:
· Transrotor Alto mit TRA 9 und London Jubilee
· Acoustic Solid 113

Speakers:
· Audio Physic Avantera III
· K+T Nada

Accessories:
· Phono cables: Nordost, Signal Projects
· NF cables: KLE Innovations, Supra, Silent Wire
· Speaker cables: KLE Innovations, Audioquest
· Power: PS Audio, pliXir
· Bases and feet: bFly, SSC, Creaktiv

Competitors

Amplifiers:
· Cambridge Edge A
· Plinius 9100 SE

There is enough power – on paper not quite in the „champions league“ yet, but more than sufficient to drive even difficult speakers. Mainly the power supply's ability to deliver current can be heard well with low-efficiency speakers: Where other amplifiers already start to sweat a bit, the FLS9 just really gets going.
And it certainly doesn't do that as a mere demonstration of pure power – although it masters that as well – but as a subtle and elegant musician that also knows how to be subtle dynamically. Lately, I have started to listen more and more to the early recordings of Blue Note Records.

And with two of my favorites from that time, recorded of course by the brilliant Rudy van Gelder, „Idee Moments“ by Grant Green and „Blue Train“ by John Coltrane, as well as the Audia Flight, I experienced a few beautiful hours full of exquisite sound and goosebump atmosphere: this is music from vinyl as it should be: Emotional, powerful, dense, atmospheric. While the FLS9 is gripping and dynamic in the bass, it treats the high-frequency range with sensitivity and maximum precision. And in between, it plays out the entire range of musical coloratura that the source offers – always neutral and yet always a touch more beautiful than the entire competition.

Thomas Schmidt

Measurements

Lab comment

The frequency response of the FLS9 is very balanced and extended. A bandwidth limiter is used in the phono branch, capping the frequency response at about 50 kilohertz. The signal-to-noise ratios of -72.6 dB(A) in MM mode and -63.2 dB(A) for MC are excellent, as is the -94.6 dB(A) in line mode. The total harmonic distortion of 0.015% at 5 watts sine power per channel is also fully convincing. The output of 160 watts into 8 ohms and 300 watts into 4 ohms exceeds the manufacturer's specifications – the power consumption is between 450 and 800 watts. The power consumption of less than one watt in standby mode is praiseworthy.

Additional modules can be added to the FLS9's already generously equipped connector panel. The phono section is built in here. Also, there are digital modules or additional inputs

Audio Flight FLS9

· Price	5,950 Euro 1,100 Euro (Phono module)
· Sales	Sieveking Sound, Bremen
· Phone	+49 421 6848930
· Internet	www.sieveking-sound.de
· Warranty	2 years
· Measurements	450 x 150 x 440 mm
· Weight	25,5 kg

Audia Flight FLS9

International 1/21

» The FLS9 is a worthy representative of its guild: It offers plenty of power and features and sounds extremely good at the same time. Well done!

Probably the Best Cartridge Solution on the Market

DS Audio's electro-optical cartridges need a special kind of signal processing. The Japanese manufacturer has now made an unmistakable mark with both the cartridge and the equalizer.

DS Audio

Gary Burton, Chick Corea – Crystal Silence

What we played

Gary Burton, Chick Corea
Crystal Silence

Loreena McKenniitt
Nights From The Alhambra

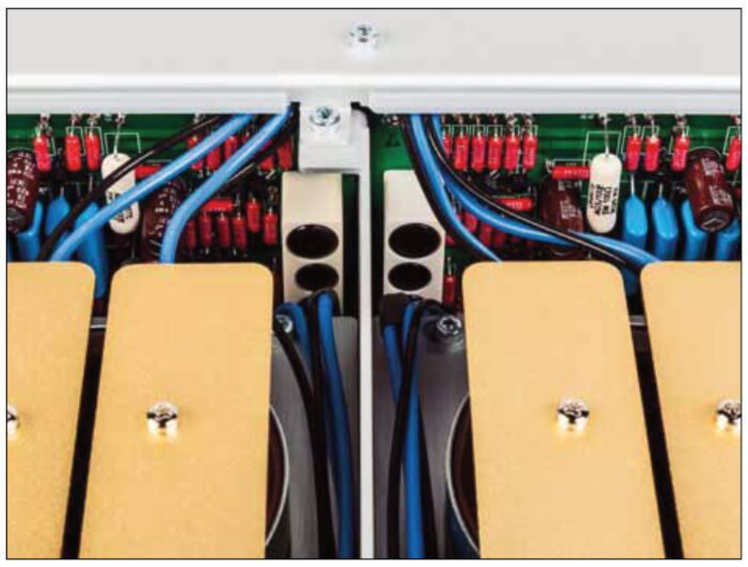
Trio Tapestry
Garden Of Expression

Miles Davis
Kind Of Blue (MFSL)

If you follow my HiFi activities in the vastness of the Internet, or even just take a peek at the „players“ list from time to time, you will know that the DS Audio entry-level model DS-E1 is a frequently used component for me. The sampler and in-house equalizer are almost always in play when I‘m not comparing cartridges or phono preamps. The combo’s gritty, powerful pace and exuberant spatial presentation are aspects I‘ve become very accustomed to and are difficult to achieve by other means. At a total price of currently 2750 euros, this should be very difficult anyway.

When I learned of the existence of the mythical „Grand Master“ from DS Audio, I registered my interest in a review despite all reservations about the exorbitant price structure. Fortunately, I was given a commitment by the German distributor. What then manifested itself in our incoming goods, however, I had not expected. That the actual cartridge would make up the smallest part of the delivery was already clear, but that two, together well over a hundredweight, lunacy-inducing electronic components would be added, exceeded the expected dimensions somewhat. The triumvirate costs 55,000 Euros – that’s a lot. In these price regions there are very few competitors, if one would combine a „normal“ cartridge with a phono preamplifier.

By the way, it is no longer necessary to buy the sampler and equalizer as a pair. If you want to buy the Grand Master cartridge alone, you can do so for 13,000 Euros and combine it with a different equalizer. All

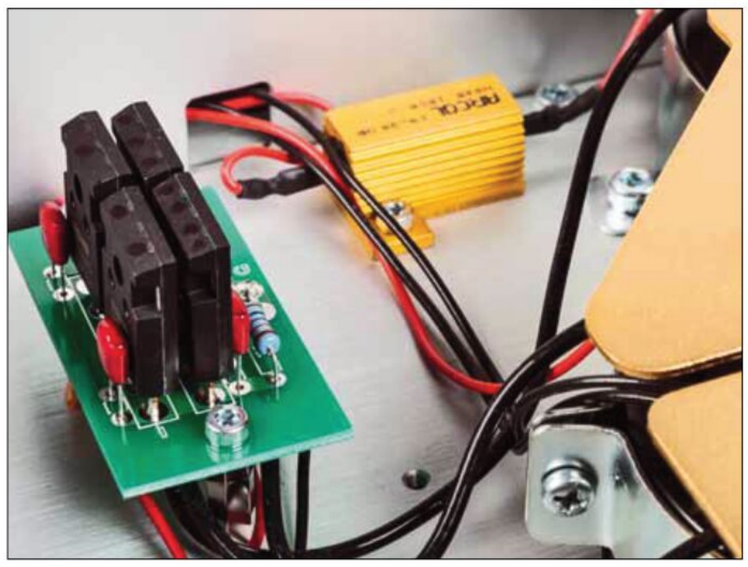


The equalizer circuit itself accounts for only a small part of the material used in the two electronic components

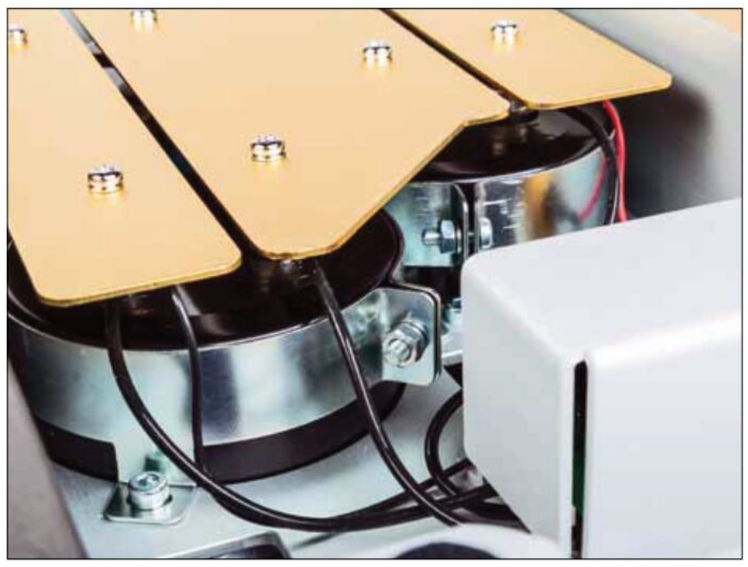
cartridges and equalizers from DS Audio are compatible with each other. In the meantime, the manufacturer has even disclosed the specifications for signal processing, and the first third-party equalizers are already on the market. And yes, of course I have combined the entry-level and top model with the respective other equalizer – with interesting results.

First, let’s look at the 7.7 gram Grand Master stylus. The curved housing is made of an alloy called „Ultra Duraluminum“ and has a standard half-inch mounting. Unfortunately, the 3D-printed needle guard and I didn’t become very close friends, as the part broke in two shortly after unpacking. Unfortunately, this is not uncommon with these „motorized hot glue gun“ parts.

Hardly any stone was left unturned when it comes to the cartridge itself. While the smaller models use styli made of boron and sapphire, a diamond rod guides a scanning diamond with a micro ridge cut.



Discreetly built bridge rectifiers are located under shielding hoods

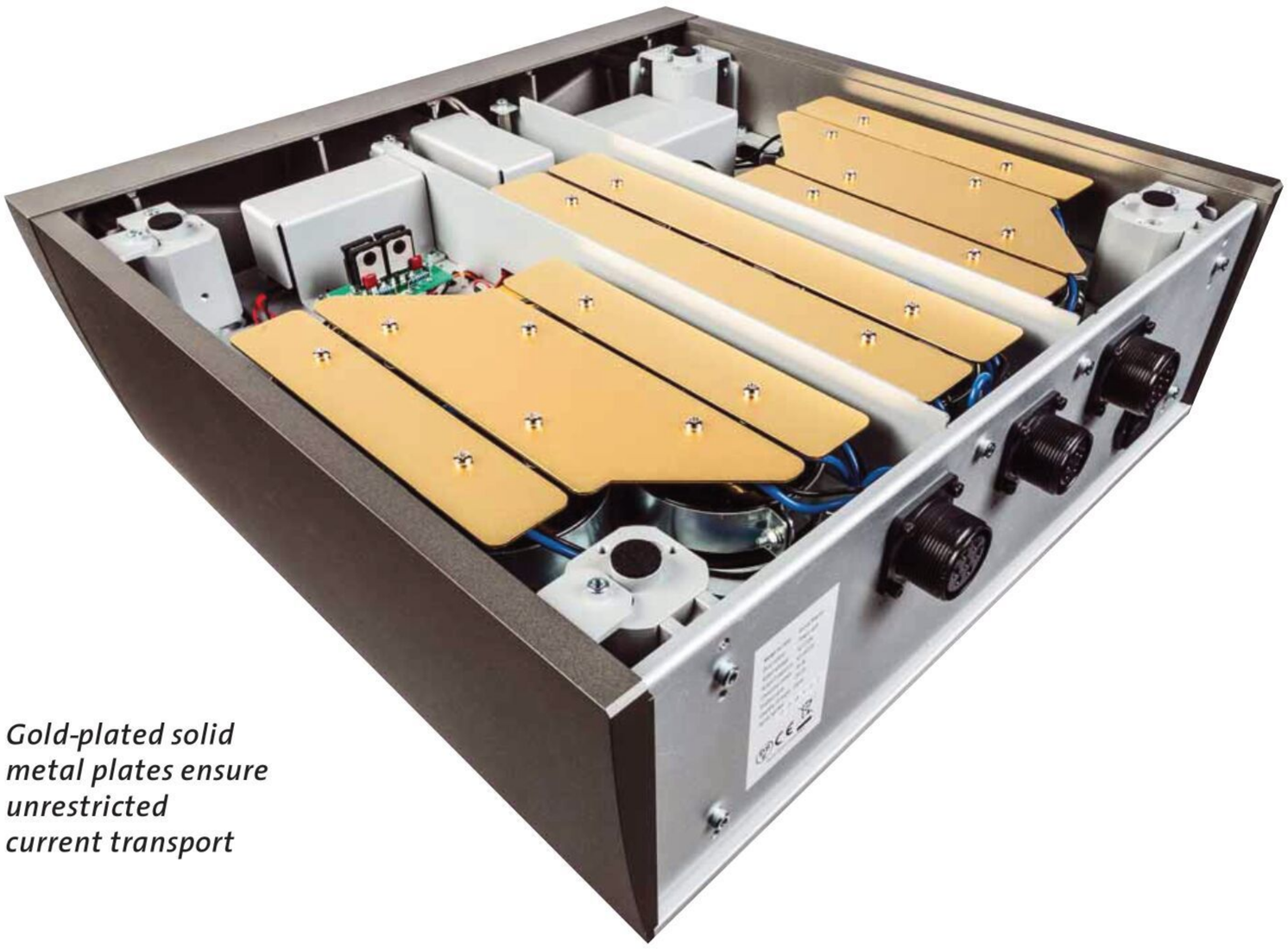


The supply concept of the Grand Master electronics relies on huge amounts of screening capacity

The greatest progress, however, resides inside the housing: For the first time, DS Audio uses two light sources that irradiate the two light receivers separately. This has a few decisive advantages. The „paddle“, which is connected to the needle carrier and shades the light paths, has been significantly reduced in size and now weighs only a miniscule 0.74 milligrams – that's a reduction by half compared to previous models. In addition, the part is now made of stiff and lightweight beryllium. The result is an extremely low moving mass that should allow the needle to follow the groove flanks perfectly.

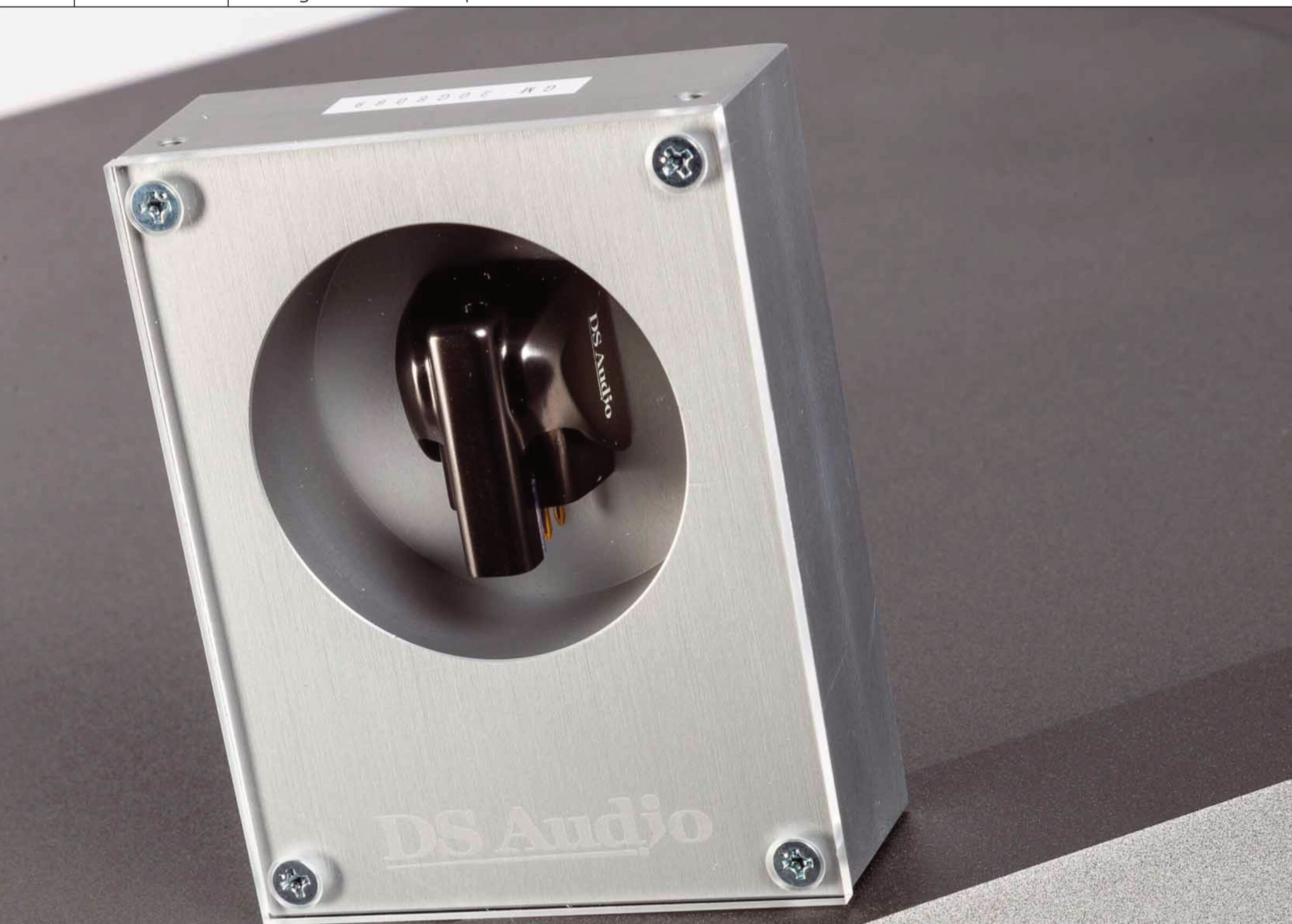
A pleasant side effect of the change: The signal level increased from 40 to 70 millivolts, so that even less amplification is required afterwards.

In the Grand Master, the amplification lies in the hands of two highly impressive half-meter-deep cuboids that seem to have just been launched from a space dock in Earth orbit. The impression is supported by the



Gold-plated solid metal plates ensure unrestricted current transport

Caution is advised: The Grand Master cartridge comes in at 13,000 Euros


DS Audio
DS Audio
DS Audio

The signal connections are color coded in the classic manner

The housing is made of an alloy called „Ultra Duralumin

white backlit arrows that indicate operational readiness. Exactly the same mark can also be found on the front of the cartridge. One of the two interstellar flying objects contains the power supply, one holds the equalizer itself. Three cables with imposing industrial connectors provide the connection between both components, there are even cables in two lengths included. I made do with the short cables and dared to run the two devices directly on top of each other. There are three power transformers in the supply section. One operates the light sources in the cartridge, the other two the equalizers, separated by channels. Essentially, however, the scene is dominated by an enormous armada of electrolytic capacitors. The unit differs only slightly from chassis number two, where abundant filtering is also the main ingredient. To be more precise, there are almost three Farad capacitors in the power supply (or three million Microfarad, which sounds more impressive) and 2.34 Farad in the equalizer section. Mind-boggling.

The actual amplifier and equalizer electronics, on the other hand, seem unspectacular and are almost bashfully squeezed into the corner behind the front panel..

DS Audio equips the Grand Master equalizer with custom-made passive components and garnishes the fully balanced work of art with three outputs, which are all high-pass filtered differently. This makes perfect sense, because the cartridge mercilessly amplifies everything from DC voltage and you have to be a little careful at this point. In addition, there is another switchable low-pass filter with a cutoff frequency of 30 or 50 Hertz.
Connection and installation of the Grand Master cartridge are unproblematic, it gets along very well in the Reed 1X and can be balanced without problems. When switching on the electronics, one must be patient for a moment, as the enormous energy storage needs to be filled first. Of course, I first clamped to the bass-potent

The white arrow lights up in operation, but has only a decorative function

The white arrow lights up in operation, but has only a decorative function

Teammates

Turntable:
· TechDAS Air Force III

Tonearm:
· Reed 1X
· Reed 3P
· SME 5009

Preamplifier:
· NEM PRA5

Cartridge:
· Silvercore Collector's Amp

Loudspeaker:
· DIY Focal / JBL

Competitors

Tonabnehmer:
· Lyra Atlas
· Lyra Etna
· DS Audio DS-E1

Phono preamplifier:
· MalValve preamp three phono

In keeping with its status: the cartridge is packaged in a solid aluminum block

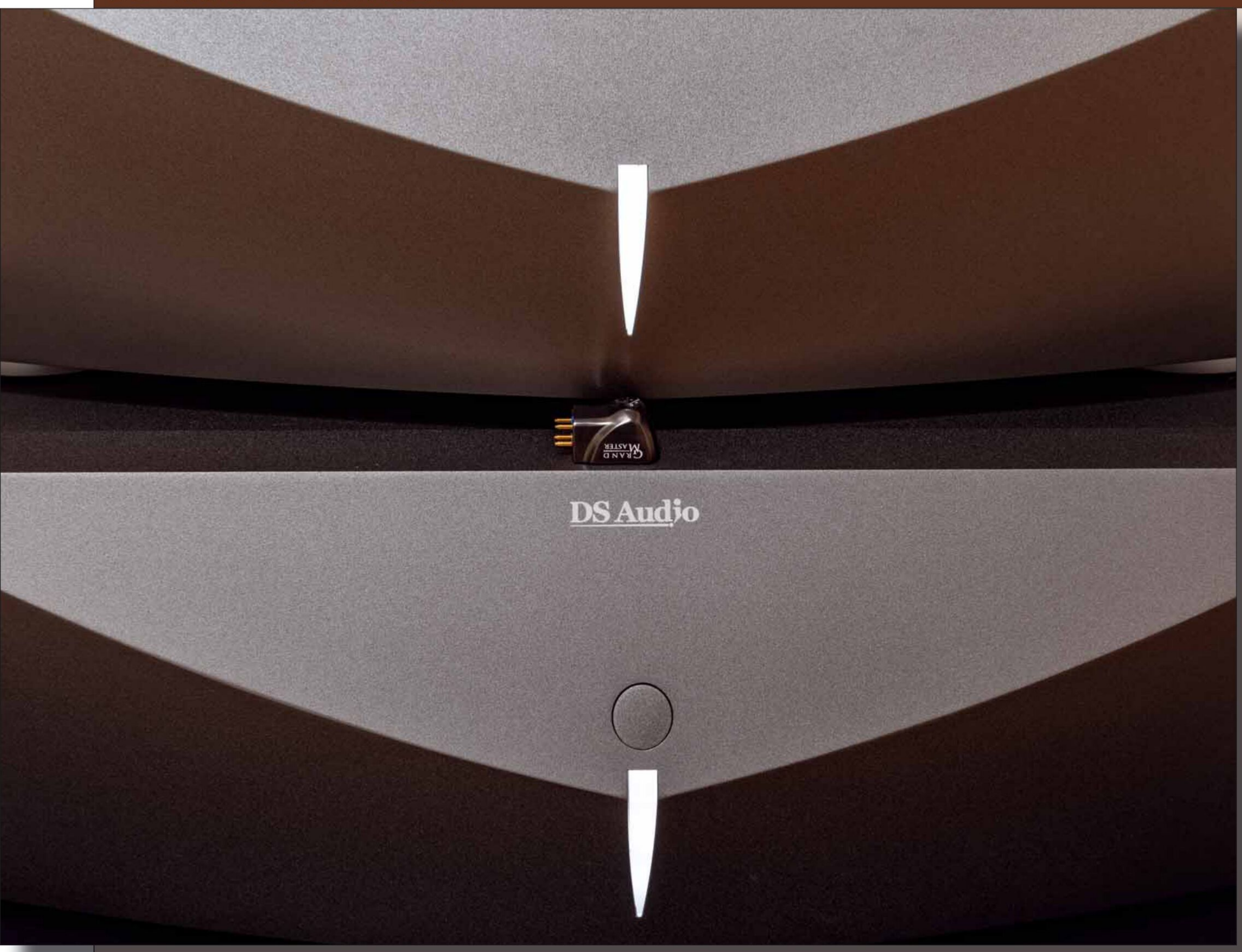
output 1 and set the high-pass to 30 Hertz. The result startled me a bit, because the low-frequency energies unleashed here are clearly too much of a good thing. With this you can tear bass membranes out of their clamping, and that at room volume. In the end, I left the high pass at 30 Hertz, but decided on output 3 with the most civilized bass frequency response. Well, that works. Okay, what's the point? This mad combination retrieves things from a record groove that I had not previously thought possible.

It delivers a transparency, a clarity, a dynamic range that I've heard from a master tape here and there, but not from a record. The sheer force of the presentation, the extreme ability to free a singer's voice is simply breathtaking. In fact, the cartridge bears the greater part of the responsibility for this result, as it also shows its class on the DS-E1's equalizer. The DS-E1 doesn't have to be reproached for anything, but the experiment clearly answers an unresolved question: The noise that is clearly audible with the small combination is definitely the fault of the equalizer, even if it is not quite as noticeable with the Grand Master due to the higher signal level. The DS-E1 on the two-part equalizer, on the other hand, gives us hope: It loses its last harshness and plays fluidly, freely and openly, impressing as ever with luxurious spatial representation and convincing all along the line. However, it can't really hold a candle to its sinfully expensive brother in any discipline. Nevertheless, the individually available 1100 euro cartridge and a more potent equalizer – that's a force to be reckoned with in the analog upper house.
Enough of the experiments, let's turn back to the top of the line. Yes, I can create situations that come close to this incredible performance in individual disciplines. A big Lyra definitely plays with similar color and temperament as the big DS Audio. But I can't achieve this overview, this brutal live character. An unattainable dream? Certainly. But one that leaves a few glimmers of hope.

Holger Barske

There are also balanced outputs, but no inputs: The backs of the power supply and the equalizer

DS Audio Grand Master



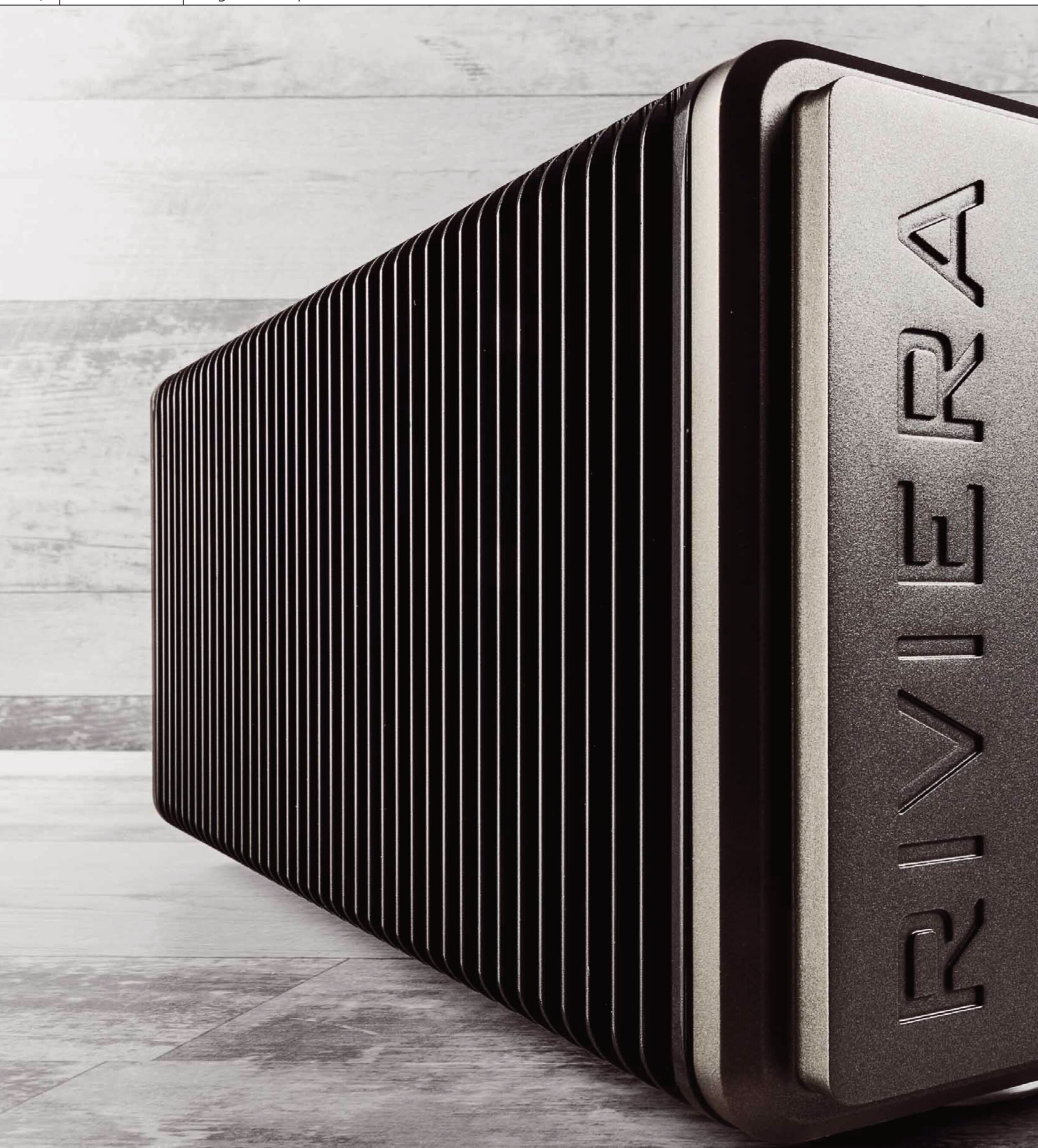
· Price	55,000 Euro
· Sales	High Fidelity Studio, Augsburg
· Phone	+49 821 32750
· Internet	high-fidelity-studio.de
· Warranty	2 years
· W x H x D	452 x 1151 x 486 mm
· Weight equalizer / power supply	ca. 25 / 30 kg

lp

DS Audio Grand Master

International 1/21

» No other analog cartridge solution plays as cleanly, dynamically, freely and transparently as DS Audio's electro-optical masterpiece.


LEVANTE

Luxury Class Hybrid Integrated Amplifier

Impressive Italian design, both visually and technically: The ambitious integrated amplifier „Levante“ from Italian manufacturer Riviera Audio Labs is an eye-catcher in every respect.

Anouar Brahem – Barzakh

What we played

Anouar Brahem
Barzakh

Daily Thompson
Oumuamua

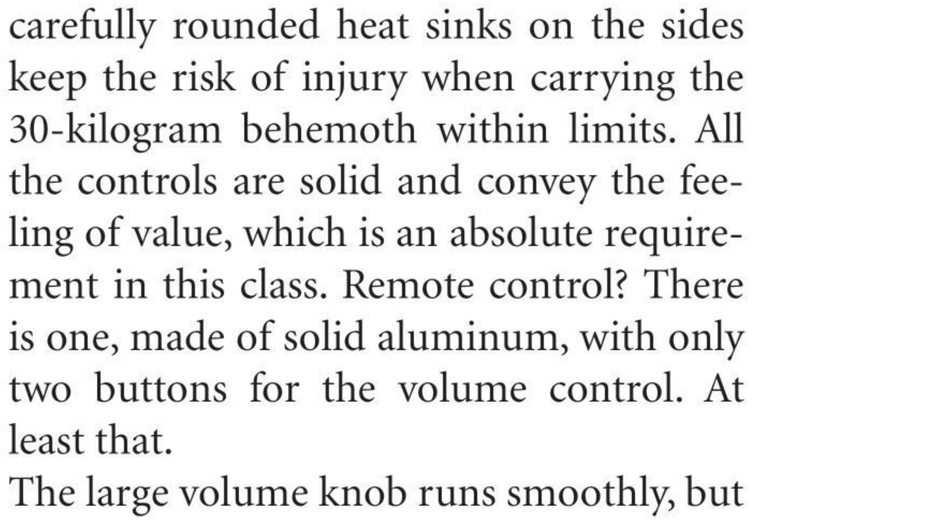
Paul Kuhn Trio
Live At Birdland

Volvopenta
Simulacrum

It had better be. Considering its price tag of around 19,000 Euro, it can't afford any shortcomings – not even concerning the fit of the tailor-made suit. Worries, however, are unfounded: The Levante is a meticulous creation that pleases the eyes and hands and is perfectly capable of making a distinguished and casually elegant appearance.

Let's first look at the bare facts: The Riviera Levante amplifies with tubes in the front and transistors in the back, which is why it's called a hybrid integrated amplifier. It has two different operating modes, and this is where the peculiarities start: There is a Class-A mode with a specified output power of 30W and a Class-AB setting, where 120W per channel are available.

Let's not fool ourselves: In many cases, manufacturers' specifications for output power and quiescent current of amplifiers are based on fantasy. What makes the Levante and its manufacturer likable is the fact that, in this case, the promised output power is stated correctly and the current consumption coincides with the data on the quiescent current.



Signals are switched with relays directly on the spot

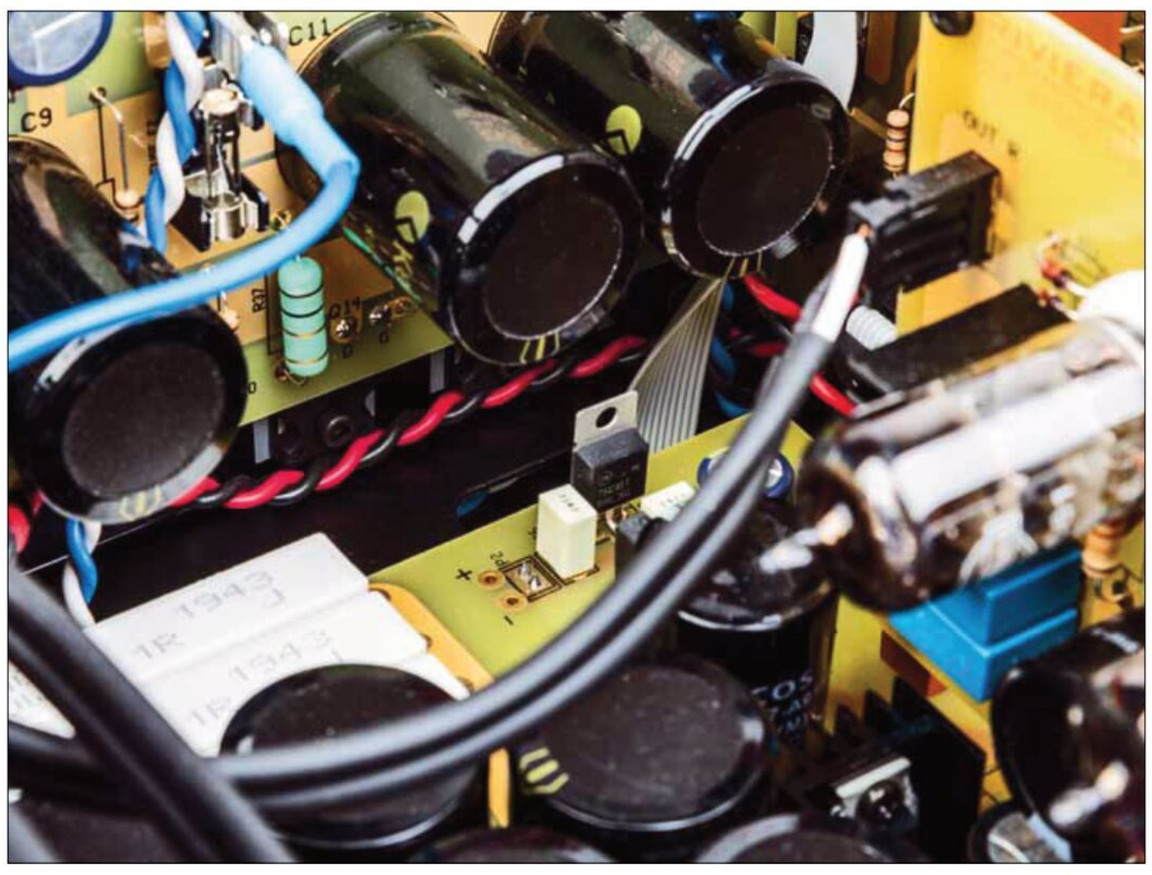
With such a boost in credibility, it's much more pleasant to touch the curves of the thick front panel, in which the company's logo is prominently engraved. In addition to the version with a titanium-gray case and silver-colored buttons that can be admired here, there is also a champagne-colored version with shiny gold buttons. The carefully rounded heat sinks on the sides keep the risk of injury when carrying the 30-kilogram behemoth within limits. All the controls are solid and convey the feeling of value, which is an absolute requirement in this class. Remote control? There is one, made of solid aluminum, with only two buttons for the volume control. At least that.

The large volume knob runs smoothly, but it could be a bit less wobbly. This is due to the universal joint on the axle directly behind the front. Not a bad thing, but not adequate for 19,000 Euro, either. The input selector on the right allows the selection of five connections, one of which is symmetrical. Line input number four can be equipped with a phono module in the future, but that was not yet available. Three buttons at the bottom allow the speakers to be switched off for headphone use, and a corresponding jack is available. The „Night" mode lowers the brightness of the red display LEDs a bit; the button on the right powers up the device. Probably the most exciting button is the rotary switch that changes between Class-A and AB mode. You can even use it during operation. The procedure takes a few seconds, and the outputs are muted. There are no volume jumps; the device amplifies equally in both modes. On the rear, there's the corresponding socket array; there's nothing special to report here.

There are few special features to be mentioned on the rear

Except for the speaker terminals, which look like upscale Furutech types. Before getting into the nitty-gritty, a few things about developer Luca Chiomenti's constructive approach to amplification: He is an avowed opponent of concepts unconditionally trimmed to low distortion and puts forward some quite plausible arguments why a precisely defined measure of even-numbered low-order harmonics is conducive to the perceived purity of a sound. This approach is reflected in the Levante's measurements: In terms of distortion, the machine behaves like a single-ended tube amplifier with distortion that increases evenly with the output power.
The circuitry of the input amplifier stage is responsible for this part: The circuitry, housed on a separate board, immediately follows input switching (with good relays immediately on the rear panel) and level control (motorized potentiometer of the better kind for remote controllability). Two dual triodes of the ECC81 single-ended type are at work there, boosting input signals to a level suitable for the power amplifier boards and delivering precisely the distortion behavior that the designer is aiming for. The power amplifiers are screwed to the voluminous heat sinks on the left and right; four MOSFETs per side are responsible for providing the output line.

The manufacturer emphasizes that the amplifier has no overall negative feedback and each stage works separately in Class A mode.



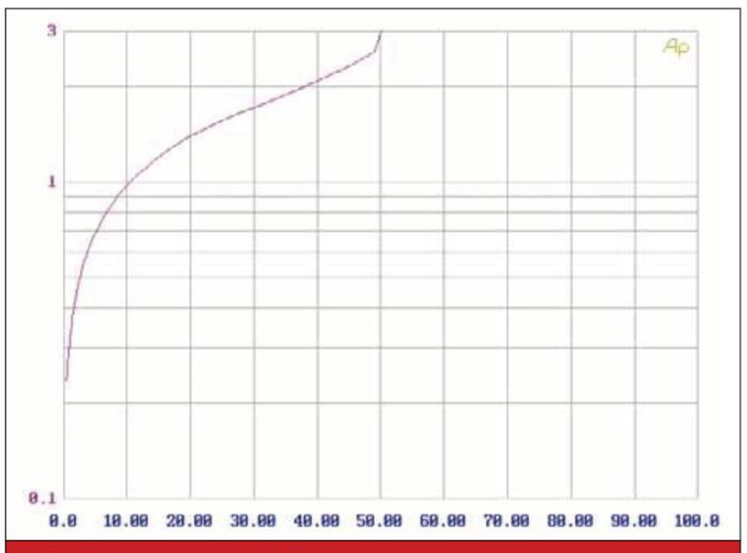
Hidden deep down: The power stage with four MOSFETs per channel

It gives the sound a slightly different touch but doesn't change the result: Mullard tubes to experiment with

emote control. Very solid, only for volume

The power is supplied by a centrally located impressive transformer, which distributes its energy to the individual stages via ample sieving and filtering. In the case of the tube input stage, even an electronic operating voltage stabilization comes into play.

There is no protection circuit. Luca Chiomenti considers such a thing to be fundamentally detrimental to the sound and relies exclusively on fuses in the operating voltage lines of the power amplifiers. Therefore, he over-dimensioned every component at critical points to exclude mishaps as far as possible. There's nothing to criticize about the construction. This is well-thought-out and neatly executed electronic craftsmanship so that the lid can be quickly put back on.



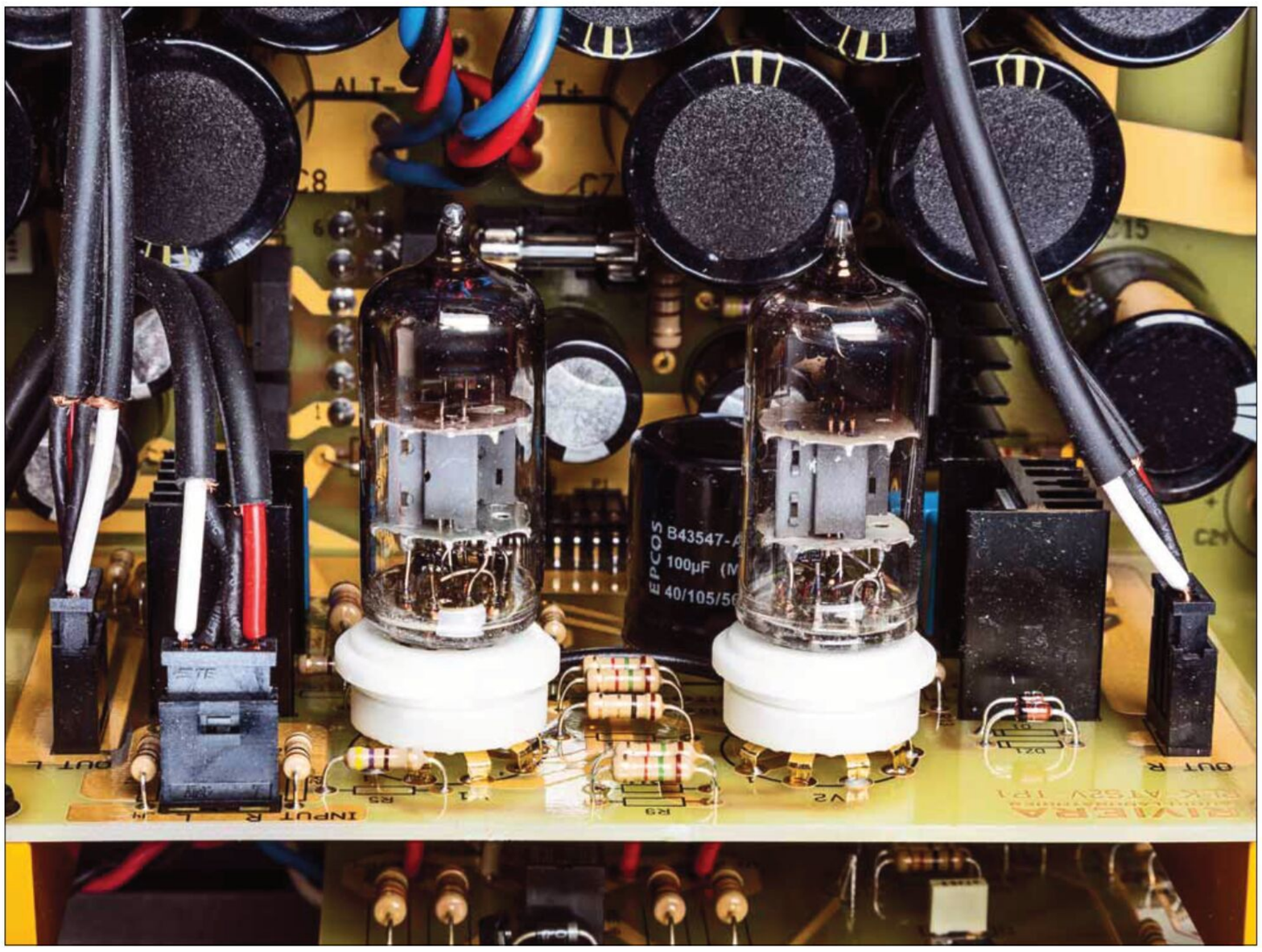
Measurements

Lab commentary

If we're generous with the distortion limits, the Levante puts out a good 40 watts into eight ohms and 70 watts into four ohms in A mode. In AB mode, there are 120 watts into eight and 180 watts into four ohms. The signal-to-noise ratio in A mode at 5 watts is an excellent 91.6 decibels(A), and the channel separation is 77 decibels. The distortion is 0.83 percent under the same conditions, and the current consumption in A mode is a constant 170 watts.

I got to know Anouar Brahem more or less by chance. First and foremost, the jazz and vinyl professionals from the famous Munich label ECM supply me with records from their portfolio with gratifying regularity. The Tunisian oud virtuoso would probably have passed me by without this fortunate coincidence, although, thanks to the Lebanese Rabih Abou-Khalil, I am a great fan of the sound of this Arabian short-necked lute. Brahem's first album for ECM, called „Barzakh," was already released in 1990 and is currently available again as a vinyl edition.

The high-quality construction of the interior also offers a feast for the eyes



Included in the scope of delivery: an in-house high-quality power cord

The music is without a doubt oriental, highly emotional, minimalist, virtuosic, and evocative. Conveying the depth and grandeur of this music is a tough job. With a reasonably efficient loudspeaker and the Levante in class-A operation, the record becomes an almost traumatic experience. Be it the very own tone of each string break with its long decay, the dust-dry percussion with depth, force, and discipline, the tremendously soulful timing in the solos with quite a lot of all the more telling nothing between the notes – great art, by everyone involved. This is music that still seems quiet even when you listen to it loud. The fact that the recording was made at Rainbow Studios in Oslo by none other than legendary producer Jan Erik Kongshaug is not a surprising realization, but rather one that was almost obvious given the quality of the result. By the way, this is a digital recording. So what?

At no time did I get the impression that the 30 watts in Class A mode on a speaker with just under 90 decibels of efficiency were not enough. I prefer this setting's extraordinarily fluid and natural character to the somewhat less controlled and more boisterous operation in AB mode. The results will probably be somewhat different with much more „normal" transducers because the unit will then be somewhat more challenged in AB mode. In any case, I was amazed both with the Dynamikks Monitor 10 (test in the current Loudspeaker Yearbook) and with our exquisite do-it-yourself two-way system „Ella" as to how much punch these 30 watts can develop. I recommend „Sad Frank" by the great Dortmund stoner rock troupe „Daily Thompson" for review. Indeed, the selling price of this unit is a somewhat immoral matter. However, if you push the ratio aside, the Riviera Levante is worth a sin.

Holger Barske

Teammates

Turntable:
- TechDAS Air Force III / Reed 3p / Skyanalog G-2
- Levar Ultimate / Ultimate Carbon 12" / Skyanalog G-3

Phono preamp:
- Malvalve preamp three phono

Loudspeaker:
- Dynamikks Monitor 10
- K+T Ella
- DIY Focal / JBL

Competitors

Preamplifier:
- NEM PRA5

Power amplifier:
- Silvercore Collector's Amp

These two tubes steer the distortion spectrum of the unit in the desired direction

Riviera Audio Levante

· Price	ca. 19.000 Euro
· Distributor	HiFi-Welt Robert Rothleitner, Wien, Österreich
· Phone:	0043 6649676030
· Internet	hifi-welt.at
· Warranty	2 Jahre
· W x H x D	440 x 195 x 490 mm
· Weight	ca. 30 kg

lp Riviera Audio Levante

International 1/21

» A rising star in the integrated amplifier segment. Especially in Class A mode, the Levante sounds like potent tube equipment of the highest quality: highly dynamic, colorful, and poignant.

Coming soon:

Turntables - of course
As vinyl playback machines are a viable part of this publcation, expect reviews of several record players in different price ranges

Phono preamplifiers

Cartridges for vinyl playback need a special kind ofamplification. We are covering all kinds of phono stages in every issue.

Next issue LP International 14. Januar 2022

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The Test Specialists

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